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Title:
Perfect score:
Sequence:
                                                          Scoring table:
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     Searched:
                                                                                                                                                                  May 27, 2003, 14:44:16; Search time 44 Seconds (without alignments) 345.210 Million cell updates/sec
283224 seqs, 96134422 residues
                                                                                                                 US-09-743-533-19)
906
                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                          1 MRQLNPCSQELQSPQQSYLQ.....PFPQQPQPVPQQASCIWSMV 158
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Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Total number of hits satisfying chosen parameters: 283224

Database : Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

																					9	8		σ		4	ω	2			Result No.	
	239	240	242	242.5	244.5	250	253.5	255	255.5	256.5	260.5	262.5	263.5	268.5	271.5	272.5	279.5	289.5	302	310.5	332	347	384.5	412	562.5	566	580	752	830.5		Score	
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	507924	S07975	T06504	T05923	AF0611	T06498	A27319	S07361	C22364	T05718	E22364	S20519	T06500	D22364	S07365	A25677	A48048	S10015	S08312	S07189	EEWTG	PS0094	JA0153	JS0402	S18235	S18236	T05737	0	S18350		TD	
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referred process	hha /hata-dliadin	B3-hordein (clone	alpha/beta-gliadin	glutenin low molec	cell division prot		gliadin – wheat	alpha/beta-gliadin	alpha/beta-gliadin	gamma-hordein 3 -	ılpha/beta-gliadin	hordein B precurso	alpha/beta-qliadin	-g1		C-hordein (pc hor1	egg envelope prote	adi	gamma-hordein 1 pr	one		gliadin		-qliadin	secalin	alin pre	probable hordein C	dein precurs	seed storage prote		Dear intion	

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208.5	211.5	217	218.5	219	230.5	234	234	234	234	235.5	236	236.5	237	238	238	
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LUDO7	S04325	A64828	B25677	T04474	S57655	E85614	G90750	B22364	EEWTA	S57656	S07923	A22364	T06282	T06982	S01992	
annexin VII - slim	glutenin low molec	cell division prot	C-hordein (pc-919)	B1 hordein - barle	glutenin low molec	cell division prot	cell division prot	alpha/beta-gliadin	alpha/beta-gliadin	gluténin low molec	alpha/beta-gliadin	alpha/beta'gliadin	alpha-gliadin prec	glutenin low molec	glutenin low molec	

ALIGNMENTS

RESULT 2 T06211 C-hordein precursor - barley C:Species: Hordeum vulgare (barley) C:Species: Hordeum vulgare (barley) C:Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 11-May-2000 C:Accession: T06211; A03355 R:Sainova, O.V.; Mekhedov, S.L.; Zhelnin, L.G.; Khokhlova, T.A.; Anan'ev, E.V Genetika 29, 1070-1079, 1993 A:Title: Nucleotide sequence of the barley C-hordein gene. A:Reference number: Z1537; MUID:93380629; PMID:8396543 A:Accession: T06211 A:Status: preliminary; translated from GB/EMBL/DDBJ A:Molecule type: DNA A:Residues: 1-310 cSAI> A:Residues: 1-310 cSAI> A:Residues: 1-310 cSAI> A:Residues: AUTEN, J.C.; Nimmo, C.C.; Lew, E.J.L.; Kasarda, D.D. Nature 286, 520-522, 1980 A:Reference number: A93228	Qy 2 RQLNDCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61 Db 21 RQLNPSSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 80 Qy 62 TPLQPQQPFPQQPQDFLPRPQQPFPWQPQQPFPWQPQEPIPQQPQPFPQQPQ 121 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	RESULT 1 S18350 seed storage protein - barley C; Species: Hordeum vulgare (barley) C; Species: Hordeum vulgare (barley) C; Species: Hordeum vulgare (barley) C; Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 20-Aug-1999 C; Accession: S18350 R; Entwistle, J; Knudsen, S; Mueller, M.; Cameron-Mills, v. Plant Mol. Biol. 17, 1217-1221, 1991 A; Title: Amber Codon suppression: the in vivo and in vitro analysis of two C-hordein A; Reference number: S18350; MUID:92032786; PMID:1932695 A; Accession: S18350 A; Accession: S18350 A; Accession: S18350 A; Molecule type: DNA A; Residues: 1-260 < ENT> A; Cross-references: EMBL:x60037; NID:g19000; PIDN:CAA42642.1; PID:g19001 C; Superfamily: gliadin Query Match Query Match Best Local Similarity 98.7%; Pred. No. 7.7e-53; Matches 147; Conservative 0; Mismatches 1; Gaps 1;
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length: 2000000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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55.2	55.4	55.6	55.6	55.8	57	57.4	57.4	57.8	57.8	59.2	60	60.4	60.6	60.8	61.8	61.8	62.4	62.8	62.8	64.6	66.6	67.4	67.4	67.8	69.4	
11.6	11.6	11.7	11.7	11.7	11.9	12.0	12.0	12.1	12.1	12.4	12.6	12.7	12.7	12.7	13.0	13.0	13.1	13.2	13.2	13.5	14.0	14.1	14.1	14.2	14.5	
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US-09-938-842A-812	US-09-864-761-6	US-09-801-368-107	US-09-938-842A-243	US-09-925-302-301	US-09-864-761-8390	US-09-737-178-104	US-09-737-178-111	US-09-801-368-427	US-09-864-761-22361	US-09-864-761-3121	US-09-735-056-1	US-09-864-761-9629	US-09-842-552-82	US-10-255-536-208	US-09-864-761-19900	US-09-864-761-23424	US-09-864-761-5592	US-09-864-761-17051	US-09-864-761-228	US-09-789-054A-9	US-09-864-761-5863	US-10-184-634-332	US-10-184-644-332	US-09-801-368-371	US-09-864-761-4745	
Sequence 812, App	Sequence 6, Appl1	Sequence 107, App	Sequence 243, App	Sequence 301, App	Sequence 8390, Ap	Sequence 104, App	111,	Sequence 427, App	22361		ı, App	Sequence 9629, Ap	Sequence 82, Appl	Sequence 208, App	Sequence 19900, A	Sequence 23424, A	Sequence 5592, Ap	Sequence 1/051, A	Sequence 228, App	Sequence 9, Appli	Sequence 5863, Ap	Sequence 332, App	Sequence 332, App	Sequence 3/1, App	Sequence 4745, Ap	

ALIGNMENTS

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RESULT 1 US-09-864-761-20241 ; Sequence 20241, Application ; Setent No. US20020048763A1 GENERAL INFORMATION: APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY APPLICANT: PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366 CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23 PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00664 PRIOR APPLICATION NUMBER: US 60/180,312 PRIOR FILING DATE: 2000-02-04 APPLICANT: PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00669
PRIOR FILING DATE: 2001-01-30 PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30 PRIOR FILING DATE: PRIOR APPLICATION NUMBER: GB 24263.6 PRIOR FILING DATE: 2000-08-03 REFERENCE: FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00662
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00661
FILING DATE: 2001-01-30 APPLICATION NUMBER: PCT/US01/00668 FILING DATE: 2001-01-30 APPLICATION NUMBER: PCT/US01/00663 FILING DATE: 2001-01-30 APPLICATION NUMBER: PCT/US01/00665 FILING DATE: 2001-01-30 Hanzel, David I Chen, Wensheng Application US/09864761 Aeomica-X-1 2000-10-04 David K. <u>.</u> PCT/US01/00666

PCT/US01/00670

APPLICANT:

Chen, Wensheng

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                                                                        Sequence 3471, Application US/09864761 Patent No. US20020048763A1
                                                       GENERAL INFORMATION:
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APPLICANT:
              APPLICANT: Penn, Sharron G. APPLICANT: Rank, David R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 09/774,203 PRIOR FILING DATE: 2001-01-29
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PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
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OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 17

OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 8.6

OTHER INFORMATION: EXPRESSED IN HELAT, SIGNAL = 9

OTHER INFORMATION: EXPRESSED IN HELAT, SIGNAL = 9

OTHER INFORMATION: EXPRESSED IN HELAT, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 10

OTHER INFORMATION: EXPRESSED IN BOULT LIVER, SIGNAL = 8.4

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 10

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 10

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94 AAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCCAACAATATTTCCCCTATCTACCA
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CURRENT FILING DATE: 2001-05-23
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PRIOR APPLICATION NUMBER: US
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D IN HEART, SIGNAL = 9

D IN HBLHOO, SIGNAL = 12

D IN BT474, SIGNAL = 11

D IN FETAL LIVER, SIGNAL = 11

D IN ADULT LIVER, SIGNAL = 8

D IN ADULT LIVER, SIGNAL = 8

D IN BONE MARROW, SIGNAL = 12
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US-10-025-380-1058
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Best Local
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SEQ ID NO 1058
LENCTH: 15720
TYPE: DNA
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CURRENT FILING DATE: 2001-12-19
NUMBER OF SEQ ID NOS: 1129
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TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND DIAGNOSIS
TITLE OF INVENTION: OF COLON CANCER AND METHODS FOR THEIR USE
FILE REFERENCE: 210121.471C14
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Vedvick Thomas S.
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Stolk, John A.
Wang, Tongtong
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Benson, Darin R.
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Wang, Aijun
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Smith, Carole L.
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                                                                                                                                                               Conservative
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SEQ ID NO 1058
LENGTH: 15720
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Best Local Similarity
Matches 252; Conserv
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TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND DIAGNOSIS
TITLE OF INVENTION: OF COLON CANCER AND METHODS FOR THEIR USE
FILE REFERENCE: 210121.471C13
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Wang, Aijun
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Smith, Carole Lynn
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Benson, Darin R.
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54.7%;
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Pred. No. 2.4e-18;
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CURRENT FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND TITLE OF INVENTION: DIAGNOSIS OF COLON CANCER AND METHODS FOR THEIR FILE REFERENCE: 210121.471C12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Wang, APPLICANT: Clapp
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APPLICANT: Meagher, Madeleine J.
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Stolk, John A.
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Pred. No. 2.4e-18;
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OTHER INFORMATION: MAP TO ALO78472.1

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 19

OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 19

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 34

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 7.1

OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 7.1

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 43

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 20

OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 25

OTHER INFORMATION: EXPRESSED IN HBL100, SIGNAL = 25

OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 25

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 21

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 21

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 21

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2000-05-26 PRIOR APPLICATION NUMBER: US 09/632,366
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APPLICATION NUMBER: PCT/US01/00664
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00669
FILING DATE: 2001-01-30
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APPLICATION NUMBER: PCT/US01/00670
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Hanzel, David K.
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US-09-864-761-2513/c; Sequence 2513, Application; Patent No. US20020048763A1
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PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR PELICATION NUMBER: GB 4263.6
PRIOR APPLICATION NUMBER: GB 4263.6
PRIOR APPLICATION NUMBER: GB 60/236,359
PRIOR APPLICATION NUMBER: US 60/236,359
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Hanzel, David K.

APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
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CURRENT FILING DATE: 2001-05-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: Aeomica-X-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local _ 222;
                                                                                                                                                                                  R FILING DATE: 2000-08-03
APPLICATION NUMBER: GB 24263.6
FILING DATE: 2000-10-04
APPLICATION NUMBER: US 60/236,359
FILING DATE: 2000-09-27
                                                                APPLICATION NUMBER: PCT/US01/00667
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00664
                      FILING DATE: APPLICATION
                                                                                                                                        FILING DATE: 2001-01-30
                                                                                                                                                              APPLICATION NUMBER: PCT/US01/00666
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: 2001-01-30
NUMBER: PCT/US01/00669
: 2001-01-30
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Pred. No. 4.1e-18;
0; Mismatches 203;
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OTHER INFORMATION: E.
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LENGTH: 1403
TYPE: DNA
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Best Local Similarity
Matches 222; Conserv
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PRIOR APPLICATION NUMBER: PCT/US01/00670
PRIOR APPLICATION NUMBER: PCT/US01/00670
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR FILING DATE: 2000-06-30
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D IN LUNG, SIGNAL = 19
D IN BT474, SIGNAL = 34
D IN FETAL LIVER, SIGNAL = 7
D IN ADULT LIVER, SIGNAL = 7
D IN HELA, SIGNAL = 4
D IN PLACENTA, SIGNAL = 20
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N PLACENTA, SIGNAL = 20
N HEL100, SIGNAL = 25
N HEART, SIGNAL = 18
N BRAIN, SIGNAL = 21
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; NAME/KEY: CDS
; LOCATION: (1)..(867)
US-09-216-393-340
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                                                                                          Sequence 342, Application US/09216393 Patent No. US20010014447A1 GENERAL INFORMATION:
APPLICANT: Milhausen, Michael James
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APPLICANT: Milhausen, Michael James
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Best Local
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CURRENT APPLICATION NUMBER: US/09/216,393
CURRENT FILING DATE: 1998-12-18
                                    TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS, TITLE OF INVENTION: USES THEREOF FILE REFERENCE: TX-1-C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/216,393
CURRENT FILING DATE: 1998-12-18
EARLIER APPLICATION NUMBER: 08/994,825
EARLIER FILING DATE: 1997-12-19
NUMBER OF SEQ ID NOS: 364
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ORGANISM: Toxoplasma
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; LOCATION: (238)..(1104) US-09-216-393-343
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; TYPE: DNA
; ORGANISM: Toxoplasma
US-09-216-393-342
                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/216,393
CURRENT FILING DATE: 1998-12-18
EARLIER APPLICATION NUMBER: 08/994,825
EARLIER FILING DATE: 1997-12-19
NUMBER OF SEQ ID NOS: 364
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 343
LENGTH: 1397
                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Milhausen, Michael James
APPLICANT: Milhausen, Michael James
TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS,
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: TX-1-C2
Best Local Similarity
                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 343, Application US/09216393 Patent No. US20010014447A1
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EARLIER FILING DATE: 1997-12-19
NUMBER OF SEQ ID NOS: 364
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 342
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APPLICANT: Milhausen, Michael James
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                                                                                                                                                                                                                                    Query Match
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CURRENT APPLICATION NUMBER: US/09/216,393
CURRENT FILING DATE: 1998-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS, NUCLEIC ACID MOLECULES, AND TITLE OF INVENTION: USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                    EARLIER APPLICATION NUMBER: 08/994,825 EARLIER FILING DATE: 1997-12-19
                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 364
                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Toxoplasma
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                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 219; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2001-02-15 NUMBER OF SEQ ID NOS: 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
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CURRENT APPLICATION NUMBER: US/10/077,584
CURRENT FILING DATE: 2002-02-15
PRIOR APPLICATION NUMBER: 60/269,157
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TITLE OF INVENTION: YEAST SCREENS FOR THE TREATMENT OF HUMAN DISEASE
FILE REFERENCE: ARCD:367US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            423 TCAACAACCTCAACCAGTCCCCCAACAA
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                                          320 GGCAACCACAACCATTTCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                        80 CATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCCAACAATATT 139
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                                                                                                                                          GGCAACCACCAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCT 319
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                                                                                            0; Mismatches
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LENGTH: 446
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 2000-10-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/864,761 CURRENT FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K
APPLICANT: Chen, Wensheng
                                                                                                                                                                                                                                          SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 49117
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PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
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                                  OTHER INFORMATION: MAP TO ACO07249.2
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL =
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIG
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL =
OTHER INFORMATION: EXPRESSED IN HELLOO, SIGNAL =
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                     OTHER
OTHER
                                                                                                                                         ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
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FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00668
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                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 2000-09-21
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    EXPRESSED
                       EXPRESSED
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  D IN FETAL LIVER, SIGNAL = 10 IN LUNG, SIGNAL = 13 D IN HBL100, SIGNAL = 12 D IN HELA, SIGNAL = 13 D IN PLACENTA, SIGNAL = 13
PLACENTA,
  SIGNAL = 13
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; OTHER INFORMATION: N
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                                                          PRIOR FILING DATE:
                                                                                                                 PRIOR FILING DATE: 2001-01-30 PRIOR APPLICATION NUMBER: PCT,
                                                                                                                                                            PRIOR
                                                                                                                                                                                                                      PRIOR FILING DATE: 2000-10-04
                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US (PRIOR FILING DATE: 2000-08-03
                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 2000-02-04
                                                                                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: Aeomica-X-1
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APPLICATION
                   FILING DATE:
                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION:
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                   2001-01-30
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51.9%;
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Sequence 19531, Application US/09864761 Patent No. US20020048763A1
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                                                                                                                                       CACCACCACCGCCACCACCACCACCACCACCACGAGGT
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EXPRESSED IN BT474, SIGNAL = 13
EXPRESSED IN BRAIN, SIGNAL = 12
EXPRESSED IN BONE MARROW, SIGNAL = 9.7
NT HIT: AL161539.2, EVALUE 3.70e+00
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APPLICANT: Hanzel, David K.

APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
FILE REFEBENCE: Acomica-X-1
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2000-05-23
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-02-04
PRIOR PAPLICATION NUMBER: US 99/632,366
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-09-87
PRIOR FILING DATE: 2000-09-87
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2000-10-04
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00664
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00669

US-09-864-761-768/c

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Application US/09864761

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US-09-864-761-19531
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OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 7

OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN BOME MARROW, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN BOME MARROW, SIGNAL = 13

OTHER INFORMATION: EXPRESSED IN HELLOO, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 13

OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 10

OTHER INFORMATION: EXPRESSED IN LUNG
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Best Local
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PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
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PRIOR APPLICATION NUMBER: US 09/608,408
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TYPE: DNA
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                                                      TACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCAACA 449
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RESULT 15

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US-09-864-761-768
                    Query Match
Best Local Similarity
                                                                                                 OTHER INFORMATION: MAP TO 26
OTHER INFORMATION: EXPRESSED
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PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00667
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PRIOR APPLICATION NUMBER:
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CURRENT FILING DATE: 2001-05-23
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l, David K.
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                                                                                                                                    D IN HELA, SIGNAL = 12
D IN ADULT LIVER, SIGNAL = 12
D IN BRAIN, SIGNAL = 17
D IN HEART, SIGNAL = 7
D IN PLACENTA, SIGNAL = 11
D IN BT474, SIGNAL = 11
D IN BONE MARROW, SIGNAL = 11
D IN HBL100, SIGNAL = 11
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                      Score 77.4; DB 10; Pred. No. 6e-12;
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Mismatches
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             176 TCACCACCACCACCGCGACCACCGCAACAGCTCACTCTCC 134
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Search completed: May 25, 2003, 20:22:00 Job time: 152.754 secs

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Title:
Perfect score:
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No.
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               a
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                               Score
 321.6
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Gapop 10.0 , Gapext 1.0
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66.9
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em_estov: *
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gb_est4:*
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em_gss_rod:*
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em_gss_other:*
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gb_gss:*
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14 BQ755360
10 BE195280
10 BE601687
12 BG365870
9 AJ435523
9 AJ485191
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BE195280 HVSMEH008
BE601687 HVSMEH009
BG365870 HVSMEH000
AJ433523 AJ435523
AJ485191 AJ485191
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ALIGNMENTS

RESULT 1

FEATURES source	REFERENCE AUTHORS TITLE JOURNAL COMMENT	ACCESSION VERSION KEYWORDS SOURCE ORGANISM	BQ755360 LOCUS DEFINITION
Genome Dynamics/Computational Biology Scottlish Crop Research Institute Invergowrie, Dundee, DD2 5DA, Scotland, UK Tel: 00 44 1382 562731 Fax: 00 44 1382 562426 Email: est@scri.sari.ac.uk. Location/Qualifiers 1567 /organism="Hordeum vulgare"	Triticede; Hordeum. 1 (bases 1 to 567) 1 (bases 1 to 567) Hedley,P., Liu,H., Caldwell,D., McCallum,N., Mudie,S., Cardle,L., Ramsay,L., Machray,G., Marshall,D.F.M. and Waugh,R. Development of Barley Transcriptome Resources Unpublished (2001) Contact: Waugh R, Marshall DF Contact: Waugh R, Marshall DF	sequence. B0755360 B0755360.1 GI:21963832 EST. Hordeum vulgare. Hordeum vulgare Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta: Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae	BQ755360 567 bp mRNA linear EST 26-JUL-2002 EBed07_SQ002_L09_R endosperm, 28 DPA, no treatment, cv Optic, EBed07_Hordeum vulgare cDNA clone EBed07_SQ002_L09 5', mRNA

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RESULT 2
BE195280
LOCUS
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AUTHORS
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SOURCE
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                                                                                                                                                                                                                            BE195280 585 bp mRNA linear EST 22-OCT-2001
HVSMEh0088M16f Hordeum vulgare 5-45 DAP spike EST library
HVcDNA0009 (5 to 45 DAP) Hordeum vulgare cDNA clone HVSMEh0088M16f,
mRNA sequence.
                                    1 (bases 1 to 585). Wing,R., Close,T.J., Kleinhofs,A., Wise,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
                                                                                                                                  Hordeum vulgare
                                                                                                                                                        Hordeum vulgare.
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                                                                            Triticeae; Hordeum.
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Henry,D., Palmer,M., Rambo,T.
, Close,S.J., Oates,R. and Ma
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/db_xref="taxon:4513"
/clone="EBed07_SQ002_L09"
/clone_lib="endosperm, 28 EBed07"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Vector: psport; Site_1: Sal I; Site_2: Not I; Non-normalised library, directionally cloned into psport! Non-normalised library, directionally cloned into psport! Derived from endosperm tissue dissected from developing grains (28 days post anthesis) in glasshouse grown barley plants. Developed as part of the barley transcriptome resources of BBSRC/SEERAD funded cereal IGF (Investigating Gene Function) project."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="endosperm"
/dev_stage="28 DPA"
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84.8%;
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                        ., Simmons, J.,
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                                            Frisch, D.,
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                                                                                                                                                                                                                                                               64 CCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clemson University
100 Jordan Hall, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 864 656 7288 Fax: 864 656 4293
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                                           AGGCAACTAAACCCTAGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCAGCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plants were grown in the greenhouse at the University of California, Riverside (Fenton, SJ Close, TJ Close). Whole spikes with awns trimmed were collected at 5, 10, 15, 20, 30 and 45 DAP (Fenton). Total RNA was prepared from each pool, equal quantities of all six RNA pools were combined, poly(A) RNA was purified from the mixture, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids (Choi)in the TJ Close lab at the University of California, Riverside. Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence nanlysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or above. For more Actails on 11brary venamenting and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    http://www.genome.clemson.edu/projects/barley. To order this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored Err resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html)" a 228 c 47 g 102 t
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HVcDNA0009 (5 to 45 DAP)"
/tissue_type="5-45 DAP Spike"
/lab_host="SOLR"
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/db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   above. For more details on library preparation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="HVSMEh0088M16f"
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84.8%;
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No. 3.7e-59;
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RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D., 1,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Choi,D.W., Fenton,R.D., Close,S.J., Oates,R. and Main,D.
Development of a genetically and physically anchored EST resource for barley genomics: Morex 5-45 DAP spike cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldea;
; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BE601687 507 bp mRNA linear EST 22-OCT-2001
HVSMEh0099C23f Hordeum vulgare 5-45 DAP spike EST library
HVcDNA0009 (5 to 45 DAP) Hordeum vulgare cDNA clone HVSMEh0099C23f,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clemson University Genomics Institute Clemson University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
BE601687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Wing RA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BE601687.2 GI:13190239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: rwing@clemson.edu
Total hg bases = 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hordeum vulgare.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer: AATTAACCCTCACTAAAGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   quality sequence start: 7 quality sequence stop: 491.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          864 656 7288
864 656 4293
/note-"vector: lambdaZAP; Site_1: EcoR1; Site_2: Xhol; Plants were grown in the greenhouse at the University of California, Riverside (Fenton, SJ Close, TJ Close). Whole spikes with awns trimmed were collected at 5, 10, 15, 20, 30 and 45 DAP (Fenton). Total RNA was prepared from each pool, equal quantities of all six RNA pools were combined, poly(A) RNA was purified from the mixture, one primary unamplified cDNA library was made, and I million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids (Choi)in the TJ Close lab at the University of California, Riverside. Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI
                                                                                                                                                                                                                                                                                                                                                      /organism="Hordeum vulgare"
/cultivar="Morex"
/db_xref="taxon:4513"
/clone="HvSMEh0099C23f"
/clone="HvSMEh0099C23f"
/clone=Lib="Hordeum vulgare 5-45 DAP spike EST library
HvCDNA0009 (5 to 45 DAP)"
/tissue_type="5-45 DAP Spike"
/tissue_type="5-45 DAP Spike"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000 this sequence version replaced gi:9859248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clemson, SC 29634, USA
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Best Local
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                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                               JOURNAL
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                                   Clemson University Genomics Institute
Clemson University
100 Jordan Hall, Clemson, SC 29634, US
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Local Similarity
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456 CAACAACAAA 465
                                                   361 CAACAAATAA 370
                                                                                                      336 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                                                                                                                                                              244 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                                                                                                                                                                                                                    184 ACCCCCCTACAACCACAACCATTCCCCCAACAACCACAACCAACCTCTTCCTCGGCCC
                                                                                                                                                       CAACAACC - - - ATTCCCCTGGCAACCACCACAACAACCATTTCCCCCAGCCCCAAGAACCAATT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence analysis see
http://www.genome.clemson.edu/projects/barley.
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92.2%;
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Pred. No. 9.6e-58;
""" anatches 26;
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936 bp mRNA linear EST 22-OCT-2001 HVSME10004I23f Hordeum vulgare 20 DAP spike EST library HVcDNA0010 (20 DAP) Hordeum vulgare cDNA clone HVSME10004I23f, mRNA sequence. BC365870 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae; Triticaea; Hordeum.

1 (bases 1 to 936) Hordeum vulgare Hordeum vulgare. BG365870.2 GI:16323918

for barley genomics: Morex 20 DAP spike cDNA library Unpublished (2001) On Mar 8, 2001 this sequence version replaced gi:13254969 Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D., Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Choi,D.W., Fenton,R.D., Close,S.J., Oates,R. and Main,D.
Development of a genetically and physically anchored EST resource Contact: Wing RA

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390 ATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCCAACA 449
                                                                                                     303 ACAACCACAACCATTCCCACAGCAACCACAACCATTCCCCCCACCTACCACACA
                                                                                                                                                     330 ACAACCATTTCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCAACA 389
                                                                                                                                                                                                           150 ACCAGAGGAATTGTTTCCCCAATATCAAATACCAACCCCCCTACAACCACAACCATT 209
                                                                                                                                                                                                                                                           270 ACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCCTGGCAACCACA 329
                                                                                                                                                                                                                                                                                                                                                                   210 CCCCCARCARCACAACCACCTCTTCCTCGGCCCCAACACCATTCCCCTGGCAACCACA 269
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90 GCAAAAACCATTTCCAGTGCAGCAACCAGTTTCACACACCCCCAACAATATTTCCCCTATCT 149
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpagss/bgn/31/cover.html)" 351 c 69 g 177 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or above. For more details on library preparation and sequence analysis see http://www.genome.clemson.edu/projects/barley. To order
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ). Total RNA was prepared, poly(A) RNA was purified, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids in the TJ Close lab at the University of California, Riverside (Choi). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plants were grown in the greenhouse at the University of California, Riverside (Fenton, SJ Close, TJ Close). Whol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="Hordeum vulgare 20 DAP spike EST library
HvcDNA0010 (20 DAP)"
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/cultivar="Morex"
/db_xref="taxon:4513"
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/lab_host="SOLR"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60.3%;
81.4%;
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Pred. No. 2.9e-52;
Pred. No. 2.9e-52;
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DEFINITION AJ485191 RESULT

sequence

AJ485191 420 bp AJ485191 S00011 Hordeum vulgare

mRNA linear EST 24-MAY-2002 cDNA clone S0001100164F01F1, mRNA

LOCUS

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Qy
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AJ435523/c
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                                                                                                                                                          165
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                                    304 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAA 351
                                                                             129 CAAAAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                 244 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                                                                                               124 ACACCCCAACAATATTTCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACCA 183
                                                                                                                                                                                                                                                                                                                  285 CCATATCCACAAAACCCATATCTACCGCAACAACTATTTCCAGTGCAGCAACCGTTTCAC 226
                                                                                                                                                                                                                                                                                                                                                                                                345 AGGCAACTAAACCCTAGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             297;
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                                                                                                                                                                                                                                                                                                                                                     64 CCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCAC 123
69 CAACAACAACAACAACAACGGCAACAACAACAGCAGCCCTCGTGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                    4 AGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAG
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              University of Helsinki P.O.Box 56 (Viikinkaari 6A), University of Helsinki FIN-00014,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Schulman AH
Institute of Biotechnology
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AJ435523
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /dev_stage="Developing seed"
/note="12,15,18 days after pollination"
66 c 184 g 171 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Hordeum vulgare"
/db_xref="taxon:4513"
/clone="50001100053F10F1"
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85.3%;

 Mismatches

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Pred. No. 1.
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REFERENCE
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ORGANISM
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AJ484592/c
LOCUS
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AUTHORS
TITLE
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AJ485191.1
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                                Hordeum vulgare.
Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidead;
Trittoeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Schulman AH
Institute of Biotechnology
University of Helsinki
P.O.Box 56 (Viikinkaari 6A), University of
Finland.
             1 (bases 1 to 360) Saren, A.-M., Tanskanen, J., Paulin, L. and Schulman, A.H.
                                                                                                                          AJ484592.1
EST.
                                                                                                                                                                        AJ484592
AJ484592 S00011 Hordeum
sequence.
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Barley EST's
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Hordeum vulgare
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                                                                                                                                                                                                                                                                                                                    CAACAACCATTCCCCTGGCAACCACCACAACCA 336
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCAC
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 EST'S
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/note="12,15,18 days after pollination"
156 c 43 g 76 t
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/clone="80001100164F01F1"
/clone_lib="800011"
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                                                                                                                                           GI:21200548
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87.4%;
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Pred. No. 1.9e-43
                                                                                                                                                                                      360 bp mRNA linear EST 24-MAY-20 vulgare cDNA clone S0001100047B07F1, mRNA
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ACCESSION
VERSION
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                                                                                                                                                     AUTHORS
TITLE
JOURNAL
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Best Local :
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                                                                                                                                                                                                                        Hordeum vulgare.
Hordeum vulgare
Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Varnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (2002)
Contact: Schulman
                                                                                        University of Helsinki
P.O.Box 56 (Viikinkaar
                                                                                                                      Unpublished (2002)
Contact: Schulman AH
Institute of Biotechnology
                                                                                                                                                                                                                                                                                                           AJ484591
AJ484591.1
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AJ484591 S00011 Hordeum
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P.O.Box 56 (Viikinkaari 6A),
                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                          sequence.
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                                                                              Finland
                                                                                                                                                                      Saren,A.-M., Tanskanen,J.,
Barley EST's
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                                                                                                                                                                                                                   Triticeae;
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/organism="Hordeum vulgare"
/db_xref="taxon:4513"
/clone="S0001100043B09F1"
                                              Location/Qualifiers
1. .300
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/note="12,15,18 days after pollination"
37 c 136 g 120 t
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/db_xref≈"taxon:4513"
/clone="80001100047B07F1"
/clone_lib="800011"
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87.6%;
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Pred. No. 2.2
                                                                                                                                                                                                                                                                                                                                                        300 bp mRNA
vulgare cDNA clone
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                                                                                           of Helsinki FIN-00014,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 CAACAACAACGGCAACAACAAC 3
                                                                                                                                                                                               The Arabidopsis Information Resource Carnegie Institution of Washington, Dep 260 Panama Street, Stanford, CA 94305, Tel: 1 650 325 1521 x 251 Fax: 1 650 325 3748
                                                                                                                                                                                                                                                                                                   1 (bases 1 to 940)
Clarke, B., Lambrecht, M. and Rhee, S.
Assessing the utility of Arabidopsis genomic information
interpreting wheat EST sequences
                                                                                                                                                                                                                                                                                                                                                                 Eukaryota: Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea; Triticeae; Tritioum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA sequence.
BQ609718
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                                                                                                                                                                                                                                                                         Contact: Lambrecht M
                                                                                                                                                                                                                                                                                       Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                 bread wheat
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                                                                                                                                                                                rhee@acoma.stanford.edu
           /dev_stage="developing endosperm tissue (days post anthesis)"
/note="Vector: Bluescript II SK(-)"
365 c 90 g 145 t
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/dev_Stage="Developing seed"
/note="12,15,18 days after pollination"
/note="12,15,18 days after pollination"
26 c 116 g 109 t
                                                                        /clone_lib="wheat EST endosperm library"
/tissue_type="endosperm"
                                                                                                       /db_xref="taxon:4565"
                                                                                                                    /organism="Triticum aestivum"
/cultivar="Wyuna"
                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                      .940
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87.3%;
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Pred. No. 1.8e-41;
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                                                                                                                                 Insert Length: Plate: 9 row:
                                                                                                                                                Email: stein@ipk-gatersleben.de
Insert Length: 595 Std Error:
                                                                                                                                                                                                                                                       Contact: Stein Nils
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73.5%;
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Pred. No. 1.3e-38;
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244 CAACAACCATTCCCCTGGCAACCAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCC
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Radchuk, V., Zhang, H., Weschke, W., Potokina, E.,
Barley ESTs from developing seeds
Unpublished (2002)
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Molecular Markers Group, Department Genbank
Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
Tel: 039482-5522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTTTTCCCCCAATATCAAATACCA 183
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/cultivar="Barke"
/db_xref="taxon: 4513"
/clone="HB09M16"
/clone=lib="BC"
/tissue_type="developing caryopsis"
/dev_stage="8-15 DAP (days after pollination)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hordeum vulgare cDNA clone HB09M16 5-PRIME, mRNA
                                                                                                                                                                                                                                                                                                                                           Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24;
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RESULT 11
BI947525
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                                                                                                                                                                                                                                                                              ORGANISM
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Local Similarity 71.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544 AACAACCATTCCCCTGGCAACCACCAACCATTTTCCC
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                                                                                                                                                                                                                                                                                                                                                                                                                  B1947525 1008 bp mRNA linear EST 19-OCT-2001
HVSME10005M10f Hordeum vulgare spike EST library HVcDNA0012
(Fusarium infected) Hordeum vulgare cDNA clone HVSME10005M10f, mRNA
for barley genomics: Fusarium Unpublished (2001)
Contact: Wing RA
                                                                                                                Wing.R., Muehlbauer,G.J., Close,T.J., Kleinhofs,A., Wise,R., Heinen,S., Begum,D., Frisch,D., Yu,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Fenton,R.D., Malatrasi,M., Choi,D.W., Oates,R. and Main
                                                                                                                                                                                                                                Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Lillopsida; Poales; Poaceae; Pooideae
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                                                                                                                                                                                                                                                                                                                                                     BI947525.1
                                                                                                                                                                                                                                                                                                                                                                                               sequence
                                              Development of a genetically and physically anchored EST resource for barley genomics: Fusarium infected Morex spike cDNA library
                                                                                                                                                                                                                                                                                                       Hordeum vulgare.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAATTCCC-----CAACAACCATTCCCCTGGCAACCACAACCATTTCCCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATATCCACAAAACCCATATCTACCGCAAAAAACCATTTCCAGTGCAGCAACCGTTTCACA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACCAACAATCATATCTGCCGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCC 445
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                                                                                                                                                                                    Triticeae; Hordeum. (bases 1 to 1008)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCACAACCATTCTCCCTGCAACCCCCAACAACCATCAACCTTTTCCTCGGCCCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of cDNA); Site_2: XhoI (3'-end of cDNA); developing caryopsis, 8-15 DAP(days after pollination) Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NOT present, as well as the EcoRIadapter used for cloning. To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamHI, SalI,PstI). NOTE: Also due to the cloning system used Blue/White selection for recombinats is not 100% reliable."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /lab_host="XL10-Gold"
                                                                                                                                                                                                                                                                                                                                                     GI:16287138
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Pred. No. 1.6e-37;
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ORIGIN
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Best Local :
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296 CAATTCCC--
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clemson University Genomics Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: rwing@clemson.edu
Total hq bases = 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                          CCCCCCTACAACCACCAACACCATTC------CCCCAACAACCACCACAACAACCTCTTC 235
                                                                                                                                                                                                                                            CACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACCAA 184
                                                                                                                                                                                                                                                                                                                                                                                                     GCAGCTAAACCCTAGCTACCAAGAGTTGCAATCACCACAACAACCATTTCTGAAACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGC
                                                                                                                                                                                                                          AATNATATCTGCAGCAACCATATCCACAACCACATCTACCGCAGCAACCATTCCCCCA
                                                                                                                                                                                                                                                                                                                                                        CATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACA 124
                                                                                                                                primer: AATTAACCCTCACTAAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The GJ Muehlbauer lab: spikes were harvested and snap frozen at 0, 1, 2, 3, 4, 5, 6, and 8 days after Fusarium graminearum inoculation (Heinen). In the TJ Close lab at the University of California, Riverside, total RNA was prepared from each sample pool, equal quantities of all eight RNA pools were combined, poly(A) RNA was purified from the mixture, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids (Choi, Fenton, Malatrasi). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Sequencing and sequence analysis were performed at CUGI sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of bred value 20 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html)" a 369 c 94 g 235 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="Hordeum vulgare spike EST library HVcDNA0012 (Fusarium infected)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="HVSME10005M10f"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /cultivar="Morex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Hordeum vulgare"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     above. For more details on library preparation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="Vector: pBluescript SK(-); Site_1: EcoRI; Site_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /lab_host="TJC121"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="Spike"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://www.genome.clemson.edu/projects/barley. To order
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .1008
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74.4%;
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    -CAACAACCATTCCCCTGGCAACCACCAACAACCATTTCCCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 218.6; DB 1
Pred. No. 2.2e-37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SC
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RESULT 12
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Best Local (
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                                                                                                                                                                                                                                                           329;
                                                                                                                                                                                68 CAATCATTTTCCTATCAACAACAACCATTTCCACAGCAGCCATATCCACAACAACCATAT 127
                                                                                                                                                                                                                      25 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAAACCCATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wheat functional genomics - Glenlea developing seeds cDNA libraries Unpublished (2002)
Contact: Dr. Sylvie Cloutier
Cereal Research Centre, Agriculture and Agri-food Canada
195 Dafoe Rd, Winnipeg, MB, Canada R3T 2M9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticeae; Triticeae; Triticeae; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          was cloned directionally, not all sequences generated with reverse primer were from the 5' end (same with forward primer and 3' end).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cloutier, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BQ245760 TaE15 Triticum aestivum cDNA clone TaE15020E06R, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Average insert size is >1.4 kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: scloutier@em.agr.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Triticum aestivum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bread wheat
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                                     CTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCC 144
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 560)
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                                                                                                                                                                                                                                                                                                                                                 192 a
                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (204) 983-2340
(204) 983-4604
                                                                                                                                                                                                                                                                                                                                               /note="Vector: pCMV-SPORT6.0 (Invitrogen Technologies); Site_1: NotI; Site_2: MIUI; mRNA obtained from wheat seeds of cultivar Glenlea 15 days post-anthesis" a 240 c 41 g 87 t
                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="developing seeds"
/dev_stage="15 days after anthesis"
/lab_host="E. coli DHIOB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:4565"
/clone="TaE15020E06R"
/clone_lib="TaE15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Triticum aestivum"
/cultivar="Glenlea"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
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74.18;
----CCCCAACAACCACAACCTCTTCCTCGGCCCCAACAACCATTC
                                                                                                                                                                                                                                                                         Score 218; DB 14; Length 560; Pred. No. 2.5e-37;
                                                                                                                                                                                                                                                                                                                                             41 g
                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                         85;
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                 Matches 323;
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RESULT 13
BQ472392
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                      Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           488 CCATTCCCCCAGCAACCCCAACAA 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368 CAGCCATTCCCCCAGCAACCCCAACAACCATTTCCCCAGCCCCAACTACCATTCCCCCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence.
BQ472392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Corrensstr. 3, 06466, Gatersleben, Tel: 039482-5522
Fax: 039482-5595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Triticeae; Hordeum.

1 (bases 1 to 611)

Radchuk, V., Zhang, H., Weschke, W.,
Barley ESTs from developing seeds
Unpublished (2002)
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seq primer:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Stein Nils
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hordeum vulgare.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insert Length: 611 Std | Plate: 9 row: M column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: stein@ipk-gatersleben.de
Insert Length: 611 Std Error:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCATTTCCTCAACAACCTCAACCA 438
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                                                                                                                     198
  Conservative
                                                                                                             /note="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of CDNA); Site_2: XhoI (3'-end of CDNA); developing caryopsis 8-15 DAP(days after pollination) Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NOT present, as well as the EcoRIadapter used for cloning To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamHI, SalI.PStI). NOTE: Also due to the cloning system used Blue/white selection for recombinates is not 100% reliable."
                                                                                                                                                                                                                                                                                                                                                /tissue_type="developing caryopsis"
/dev_stage="8-15 DAP (days after pollination)"
/lab_host="XL10-Gold"
                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Hordeum vulgare"
/cultivar="Barke"
/db_xref="taxon:4513"
/clone="HB09M02"
                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="BC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
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                      45.7%;
71.3%;
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lumn: 2
  0,
                      Score 217.8; DB 14; Length 611; Pred. No. 2.9e-37;
  Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             353 AACCAATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAAC 412
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                                                                                                                                                                                                                                                                                                                                                                                                                                Clemson University
100 Jordan Hall, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Clemson University Genomics Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for barley genomics: Fusarium infected Morex spike cDNA library Unpublished (2001)
Contact: Wing RA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wing,R., Muehlbauer,G.J., Close,T.J., Kleinhofs,A., Wise,R., Heinen,S., Begum,D., Frisch,D., Yu,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Fenton,R.D., Malatrasi,M., Choi,D.W., Oates,R. and Main
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Lillopsida; Poales; Poaceae; Pooideae
; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HVSME10024C19f Hordeum vulgare spike EST library HVCDNA012 (Fusarium infected) Hordeum vulgare cDNA clone HVSME10024C19f, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BI951055
                                                                                                                                                                                                                                                                      Email: rwing@clemson.edu
Total hq bases = 508
Seq primer: AATTAACCCTCACTAAAGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCAGCAACCAACAACGTTCCCCTAGCAACCAACAATAATTCCCCCAACAACCAC 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 854)
                                                                                                                                                                             quality sequence start: 3 quality sequence stop: 636. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                     864 656 7288
864 656 4293
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                                                                                        /organism="Hordeum vulgare"
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                                                           /db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:16293688
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                                                                                                                                                                                                                                                                                                                                                                                                                                    282 CCAGCCCCAAGAACCAATTCCCCAACAACAACCATTCCC----CTGGCAACAACAACCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     225 ACAACCTCTTCCTCGGCC----CCAACAACCATTCCCCTGGCAACCACAACAACCATTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106 GTGCAGCAACCGTTTCACACACCCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTT 165
                                                                                                                                                                                                                                                                                                          393 ATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCAACAAG 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         353;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93 CAATCATATCTGCAGCAGCCATATCCATAAAACCCATATCTACCGCAACAACCATTTCCA 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46 CAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCA 105
BQ804665 706 bp mRNA linear EST 31-JUL-
WHE3557_D02_H03ZS Wheat developing grains cDNA library Triticum
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                                                                                                                                                                                       ACAACCAGTTCTATCGCAGCAACAACCATGTACACAAGACCAAACACCACTCCTACAAG 511
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Vector: pBluescript SK(-); Site_1: EcoRI; Site_2: XhoI; Plants were grown at the University of Minnesota in the GJ Muehbbauer lab; spikes were harvested and snap frozen at 0, 1, 2, 3, 4, 5, 6, and 8 days after Fusarium graminearum inoculation (Heinen). In the TJ Close lab at the University of California, Riverside, total RNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              this clone see http://www.genome.clemson.edu/orders Also
see Close TJ, Wing R, Kleinhofs A, Wise R (2001)
Genetically and physically anchored EST resources for
barley genomics. Barley Genetics Newsletter 31:29-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Fusarium infected)"
/tissue_type="Spike"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       http://www.genome.clemson.edu/projects/barley. To order
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73.78;
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99 c 104 g 157 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 215; DB 13; Pred. No. 1.3e-36;
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31;

Gaps -ACAA 45

281

272

332

392

COMMENT

JOURNAL

TITLE

REFERENCE

AUTHORS

SOURCE KEYWORDS VERSION

ORGANISM

FEATURES

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DEFINITION

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Qу	Query Match Best Local Matches 32	BASE COUNT	FEATURES Source	TITLE JOURNAL COMMENT	ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS	1
42 ACAACAATCATATCTGCGCAGCCATATCCACAAAACCCATATCTACCGGCAAAAACCATT 101	ch 44.8%; Score 213.8; DB 14; Length 706; 11 Similarity 74.9%; Pred. No. 2.2e-36; 320; Conservative 0; Mismatches 77; Indels 30; Gaps 3;	/Clone_IIIb="Wheat developing grains cDNA library" /tissue_type="whole grains" /dev_stage="3-44 days post anthesis seed" /lab_host="E. coll SOLR" /lab_host="E. coll SOLR" /note="Vector: Lambda ZAP II, excised phagemid; Site_1: EccRI; Plants were grown under six following different environmental regimes in greenhouse, Environment 1) 240c/170c day/night, well-watered, with post-anthesis fertilizer, Environment 2) 240c/170c day/night, well-watered, without post-anthesis fertilizer, Environment 3) 370c/170c day/night, well-watered, with post-anthesis fertilizer, Environment 4) 370c/170c day/night, well-watered, without post-anthesis fertilizer, Environment 5) 370c/170c day/night plus drought, with post-anthesis fertilizer, Environment 6) 370c/170c day/night plus drought, without post-anthesis fertilizer, developing wheat grains from the following were excised and frozen in liggid nitrogen, Environment 1 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 32, 36, 40, 44 DPA Environment 2 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 32, 34 DPA Environment 4 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 32, 34 DPA Environment 5 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 32, 34 DPA Environment 6 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 30 DPA Environment 6 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 30 DPA environment 6 at 3, 5, 7, 8, 10, 12, 16, 20, 24, 28, 30 DPA and total RNA was prepared by 5. Altenbach and K. Cronin at USDA-ARS, Albany, CA. A cDNA library was made using poly (A) RNA, and the cDNA clones were in vivo excised to give pBluescript SK(-) phagemids in the TJ Close lab (Chin, Close, Fenton) at the University of California, Riverside, Plasmid DNA Anderson lab (others)." 246 a 325 c 39 g	"4: 5105959818 Email: Oandersn@pw.usda.gov Sequences have been trimmed to remove vector sequence and low quality sequence with phred score less than 20 Seq primer: SK primer. Location/Qualifiers 1. 706 /organism="Triticum aestivum" /cultivar="Butte 86" /db_xref="taxon:4565"	wilson, C. and Woo, J. The structure and function of the expressed portion of the wheat genomes - Developing grains cDNA library Unpublished (2002) Contact: Olin Anderson US Department of Agriculture, Agriculture Research Service, Pacific West Area, Western Regional Research Center 800 Buchanan Street, Albany, CA 94710, USA	at. lestivum estivum viridiplantae; Streptophy nyta; Magnoliophyta; Liliop nyta; Magnoliophyta; Liliop 1 to 706) S., Anderson,O.D., Chao,S. and Woo.T. Fenton,R.D., Lazo,	aestivum cDNA clone WHE3557_D02_H03, mRNA sequence.

432 TCAACCA 438 422 CCAACAA 428	Qy
372 TITCCAGCAACCACCAACAATCATACCCTGTGCAACCATCTCAACAACCTCAACAACC 431 	Qy
324 ACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCAACAAATAAT 371	Qy Db
273 ACCATTTCCCCAGCCCAAGAACCAATTCCCCAACAACCATTCCCCTGGCA 323	Qy Db
213 CCAACAACCACAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAACAACCACAACA 272	Qy
162 GTTTCCCCAATATCAAATACCAACCACCACAACCACCACAACCACC	Qy Db
102 TCCAGTGCAGCAGCGTTTCACACACGCCAACAATATTTCCCCTATCTACCAGAGGAATT 161	Оу
2 ACAACAACCATTTCCACAGCAACCATATCCACAACAACCATATCCATCACAGCAACCATA 61	Db

Search completed: May 25, 2003, 20:17:14 Job time : 1666.16 secs

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Database :
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seg length: 2000000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Result	Score	Query Match Length DB	Length		ID	Description
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2	262.5	29.0	1162	21	AAY96255	Kaposi's sarcoma-a
ω	262.5	29.0	1162	21	AAY58500	HHV8 ORF 73 protei
4	262.5	29.0	1162	22	AAB62331	Amino acid sequenc
5	262.5	29.0	1162	23	ABB05621	Kaposi's sarcoma-a
6	255.5	28.2	369	19	AAW62647	Mature durum wheat
7	244.5	27.0	1362	22	AAU38416	Salmonella typhi c
8	234	25.8	266	22	AAU01799	Wheat A-gliadin.
9	217	24.0	1329	22	AAU34519	E. coli cellular p
10	213	23.5	308	21	AAB44499	Plant viral moveme

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	22	13	22	22	21	21	22	21	21	21	21	23	19	19	22	21	21	20	21	21	21	21	22	22	22	22	22	22	22	22	22	22	22	13	22
ALIGNMENTS	ABB67404	AAR28150	AAM42085	AAM40299	AAY45072	AAY45073	ABB67326	AAY92720	AAG13628	AAG13629	AAG13630	ABP61444	AAW64535	AAW48760	ABB71041	AAB29661	AAB29662	AAW89253	AAB29664	AAB29663	AAB43064	AAB12717	ABB71695	ABB61046	ABB70063	AAG85017	305	ABB59473	ABB67093	ABG17438	AAU32262	AAB29773	056	2	AAM24322
	Drosophila melanog	Sugar beet chitina	Human polypeptide		Rat amelogenin pro	Rat amelogenin pro	sophila m		Arabidopsis thalia			Human NF-kB activa		BOP1 protein. Mus	Drosophila melanog	histidin		Human ALP. Homo s	tyrosine	Human tyrosine pho	Human ORFX ORF2828	Streptococcus pneu	Drosophila melanog	Drosophila melanog	Drosophila melanog	Shrimp white spot	Drosophila melanoq	Drosophila melanog	ō			Human megakaryocyt	Human megakaryocyt	MSF precursor. Sy	Human EST encoded

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AAY54568	4568
ID	AAY54568 standard; Protein; 158 AA.
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AC	AAY54568;
XX	
DT	25-APR-2000 (first entry)
XX	
DE	A synthetically trucated C hordein protein (glutenin).
XX	
ΚW	C hordein gene; glutenin; seed storage protein; gluten; bread; pasta;
X	noodle; breakfast cereal; snack food; cake; pastry; flour based sauce;
×ν	film; coating; adhesive; building material; packaging material; grain.
XX	
SO	Hordeum vulgare.
So	Synthetic.
*	
FH	
Ϋ́	
F.T	
FΤ	
FΤ	/note= "encoded by TTC"
FΤ	
FΤ	/note= "encoded by CCC"
FT	
ΨŢ	/note= "encoded by TGG"
FΤ	Misc-difference 108
FΤ	/note= "encoded by CAA"
FΤ	
FΤ	/note= "encoded by TTT"
FT	
FΤ	/note= "encoded by CCC"
FΤ	Misc-difference 115

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Best Local
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Misc-difference 116
                                                                                                                                                                                                                                                                                                          are useful for preparing food products such as leavened or unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, pastries and foods containing flour based sauces. Glutenins and seed-storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging materials. Grain or parts of grain containing the modified glutenin and seed-storage protein is useful for preparing food products. The modified glutenins and seed-storage proteins are also useful as modifiers of food products in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hordein protein, which is a glutenin. The protein is designated ANG-deltaCys7Cys236, and is modified, according to the method of the invention. The specification describes a method for producing a modified glutenin or seed storage protein, by adding to the protein a domain that confers the ability to incorporate into gluten, or to bind a ligand or other macromolecule. The domain can be any domain that will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Modifying glutenin or seed-storage protein for preparing foodstuffs, films, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-JUL-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                          bind ligands that may be useful in food preparation or in food composition, e.g. a domain that binds lipids or starch. The method is used for producing modified glutenins. Glutenins and seed-storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence represents a synthetically truncated barley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Appels R, Morell M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (LIMA-)
121
                                121
                                                                61
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                                                                                                                                                                                                                Local Similarity
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QQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCIWSMV 158
                                QQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCIWSMV 158
                                                                PTPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPFPQQP
                                                                                                 PTPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQPPPQQP 120
                                                                                                                                 MRQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQI
                                                                                                                                                                MRQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQ1 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAZ45987
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                                                                                                                                                                                                                                                                   158 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fig 3; 76pp; English.
                                                                                                                                                                                                Conservative
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118
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119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "encoded by ATT"
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                                                                                                                                                                                                                100.0%;
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                                                                                                                                                                                                  ..
                                                                                                                                                                                                                Score 906; DB 21;
Pred: No. 2.3e-72;
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                                                                                                                                                                                                                               Length 158;
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RESULT 2
AAY96255
ID AAY9
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AC AAY9
XX
DT 11-S
XX
AAY96255 standard; Protein; 1162 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY96255;
                                                                                                                   (KSHV) latency-associated nuclear antigen (LANA). KSHV is also known as Human Herpes Virus 8 (HHV8) and belongs to the rhadino virus, or gamma-2 herpes virus class. The LANA protein is necessary for the
                                                                                                                                                                         Disclosure; Fig 7; 70pp; English
                                                                                                                                                                                                       Treating or preventing a disease associated with rhodino virus infection in a mammal which includes Kaposi's Sarcoma and Primary
                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                       (KIEF/) KIEFF E D.
(BALL/) BALLESTAS M
                                                                                                                                                                                                                                                                                                                                       21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                       19-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2000.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaposi's sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kaposi's sarcoma; primary effusion lymphoma; PEL;
human immunodeficiency virus; HIV; multicentric Castleman's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kaposi's sarcoma-associated herpesvirus LANA
                                                                                                                                                                                                                                                                        Kieff ED,
                                                                                                                                                                                                                                                                                                                                                19-NOV-1998;
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                                                                                                                                                  present sequence is the Kaposi's sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                  2000-387829/33
                                                                                                                                                                                                                                                                                              KAYE K M.
                                                                                                                                                                                                                                          AAA30290
                                                                                                                                                                                              Lymphoma
                                                                                                                                                                                                                                                                        Ballestas
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99US-0298568
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320..429
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760..8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     590..759
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                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "Gln, Glu-rich region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "nuclear localisation signal,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Gln,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Gln,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "acidic repeat region"
                                                                                                                                                                                                                                                                        Kaye
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pro-rich region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arg-rich region"
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both human chromosomes and with the rhadino virus cis-acting element (RVCAB), thereby providing a tethering function: the KSHV DNA episome is "tied" to the host chromosomes. This allows the viral DNA to persist in the host cell. The present sequence may be used to screen and identify molecules that inhibit LANA interaction with RVCAE, thereby interfering

efficient persistence of rhadino virus DNA in mammalian cells. Persistent rhadino virus infection is implicated in a variety of diseases e.g. Kaposi's Sarcoma (KS), Primary Effusion Lymphoma (PEL) and multicentric Castleman's disease. In addition, KS is a common malignancy in HIV patients. KSHV persists in host cells in a latent form. One of the few genes expressed from the latent viral DNA is LANA. LANA associates with

with

the latency

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RESULT 3
AAY58500
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Best Local
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                          invention relates to a novel method of detecting the presence of human herpesvirus 8 in a biological sample using peptides representative of dominant antigenic regions of HHV8. The method comprises contacting one or more isolated, immunogenic HHV8 peptides with an antibody-containing biological sample, and detecting the formation of a complex between the peptide and the antibody. The presence of a peptide-antibody complex indicates the presence of human herpesvirus 8. The detection of HHV8 infection can be used to diagnose AIDS-associated Kaposi's sarcoma. The HHV8-specific antibodies are useful therapeutically when for the passive
                                                                                                                                                                 Sequences AAY58480-Y58532 represent immunogenic polypeptides derived from human herpes virus type 8 (HHV8, a gammaherpesvirus). HHV8 play important role in the pathogenesis of AIDS-related Kaposi's sarcoma.
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                                                                                                                                                                                                                                      Claim
                                                                                                                                                                                                                                                                   New methods and compositions for the detection of human herpesvirus
                                                                                                                                                                                                                                                                                                 WPI; 2000-097142/08
                                                                                                                                                                                                                                                                                                                               Pau CP;
                                                                                                                                                                                                                                                                                                                                                                                            26-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human herpesvirus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 quergen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HHV8; detection; diagnosis; Kaposi's sarcoma; AIDS; immunogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HHV8 ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-APR-2000
                                                                                                                                                                                                                                                                                                                                                            (USSH ) US
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immunisation of a human against HHV8 infection, thereby reducing related disease. The detection assays are highly specific, sensit
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IPTPLQPQQPFPQQ--PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ--PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59
                                                                                                                                                                                                                                 2; Page 59-62; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73 protein, SEQ ID NO:21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    latency cycle of this virus. Potential antiviral treatments for mentioned diseases may therefore be based on LANA deregulation
                                                                                                                                                                                                                                                                                                                                                             DEPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1162 AA;
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Pred. No. 5.9e-15;
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sensitive and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Histone H1; tethering protein; LANA; gene therapy; multiple sclerosis; Parkinson's disease; Huntington disease; diabetes; human herpesvirus 8 KSHV; latency-associated nuclear antigen; LANA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                accurate. Early detection and treatment of Kaposi's sarcoma could diminish the severity of symptoms related to AIDS and the sensitive techniques could reduce erroneous characterisations of skin disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAF82901.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200125484-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kaposi's sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amino acid sequence of KSHV tethering protein LANA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB62331;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB62331 standard; Protein; 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UNMI ) UNIV MICHIGAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-SEP-2000; 2000WO-US26908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    is suitable for rapid throughput and screening of samples economically.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          116 FPQQ--PQQIIFQQPQQSYPVQ--PQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-281736/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EPQQREPQQ----REPQQREPQQREPQQREPQQQ 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IPTPLQPQQPFPQQ--PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ--PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0410399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29.0%;
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Pred. No. 5.9e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  51;
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protein and expression vector operationally encoding a protein suitable for tethering the nucleic acid to the histone H1 protein, where the tethering protein is LANA. The composition is useful in aiding the retention of the viral DNA in the host cell. The viral vector encodes a protein suitable for tethering DNA to Histone H1. Methods for screening for compounds which are agonistic or antagonistic for the tethering of viral proteins to histone H1 and DNA binding sites are useful for

protein

Disclosure; Fig 9B; 60pp; English.

A composition for use in gene therapy comprises an expression vector that includes a nucleic acid sequence encoding a nucleic acid binding protein.

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RESULT 5
ABB05621
ID ABB0
XX ABB0
XX ABB0
XX ABB0
XX ABB0
XX Kapo
XX Kapo
XX Kapo
XX Funda
XX Punda
XX
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Best Local
The present invention describes a system (A) for maintaining a plasmid as an episome in mammalian cells, comprising the rhadinoviral sequence LANA (latency-associated nuclear antigen) of 3489 base pairs (see ABA93487, S1) expressed in the cell, and the rhadinoviral sequence RVCAE (rhadinoviral cis-acting element) of 801 base pairs (see ABA93488, S2) present in the plasmid. Also describes is a method for maintaining a closed circular DNA in a cell by expressing (S1) in the cells and having (S2) as a cis-acting and maintenance sequence in the DNA. (A) is particularly used in gene therapy (or other gene transfer applications) that uses mammalian cells in which LANA is expressed. (A) improves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          developing the method of viral transfer. The composition has applications to gene therapy, including the treatment of multiple sclerosis, Parkinson's disease, Huntington disease and diabetes. The present sequence represents the amino acid sequence of the Kaposi's sarcoma associated herpesvirus (human herpesvirus 8) latency-associated nuclear antigen (LANA), which acts as a tethering protein.
                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 7; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                        System for episomal retention of plasmids in mammalian cells, gene therapy, comprises rhadinoviral LANA and RVCAE sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human herpesvirus 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ABA93487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (KIEF/) KIEFF E D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   primary effusion lymphoma; latency-associated nuclear antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kaposi's sarcoma-associated herpesvirus; KSHV; LANA; RVCAE; PEL; KSHV terminal repeat; rhadino virus cis acting element; episome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaposi's sarcoma-associated herpesvirus LANA protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABB05621 standard; Protein; 1162 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        563
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EPQQREPQQ----REPQQREPQQREPQQREPQQQ 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-153769/20.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPTPLQPQQPFPQQ---PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ---PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ballestas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kaye KM;
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Pred. No. 5.9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             in
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20

3 QLNPCSQELQSPQQSYLQQP-----YPQNPYLPQK--

----PFPVQQ---PF 40

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RESULT 6
AAW62647
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
        Matches
                               Query Match
                    Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                        The present sequence represents the mature glutenin protein. The DNA sequence encoding this protein is isolated from the genomic DNA of Triticum durum L. The gene codes for a low-molecular-weight glutenin protein and can be used to produce transgenic durum wheat glutenin protein and can be used to produce transgenic durum wheat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              persistence of gene therapy vectors in cells. The present sequence represents Kaposi's sarcoma-associated herpesvirus (KSHV, also called human herpesvirus 8) LANA protein, which is used in the exemplification of the present invention.
                                                         Sequence
                                                                                plants with
                                                                                                                                                         Claim 8; Page 14; 18pp; French
                                                                                                                                                                                   Durum wheat glutenin gene - coding for glutenin protein of low molecular weight
                                                                                                                                                                                                                                     WPI; 1998-365055/32
                                                                                                                                                                                                                                                              Cardelli LE,
                                                                                                                                                                                                                                                                                                                                                                 26-JUN-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Glutenin gene; durum wheat; transgenic durum wheat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mature durum wheat glutenin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW62647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW62647 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                               19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                         18-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                 Triticum durum
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPQQ--PQQIIFQQPQQSYPVQ--PQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IPTPLQPQQPFPQQ--PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ--PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80;
                    Similarity
                                                                                                                                                                                                                           AAV38816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                          369 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1162
        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                 "better
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                              D'Ovidio
                                                                                                                                                                                                                                                                                                               96IT-MI02663
                                                                                                                                                                                                                                                                                                                                         97FR-0016059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA:
                                                                                quality characteristics" [no
                   28.2%;
41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10;
Score 255.5; Db ...
n=ad. No. 7.6e-15;
n=ad. No. hes 59;
        10;
                                                                                                                                                                                                                                                              Marchitelli C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                      low-molecular-weight;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 262.5; DB 2
Pred. No. 5.9e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51;
                                                                                 details
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
      Indels 43;
                             Length 369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1162
                                                                                given].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23;
      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
      12;
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RESULT 7
AAU38416
ID AAU3
XX AAU3
AC AAU3
XX Anti
AC 27-5
PR 23-1-1
PR 23-1
PR 23-1-1
PR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                     Escherichia coli, Staphylococcus aureus, Salmonella typhi, Klebsiella pneumoniae, Pseudomonas aeruginosa and Enterococcus faecalis. The invention is also useful for the identification of potential new targets for antibiotic development. The antisense nucleic acids can also be used to identify proteins used in proliferation, to express these proteins, and to obtain antibodies capable of binding to the expressed proteins. The proteins can be used to screen compounds in rational drug discovery programmes. The antisense nucleic acid sequence is also useful to screen for homologous nucleic acids which are required for cell proliferation in a wide variety of organisms. The present sequence represents an essential prokaryotic cellular proliferation protein.
                                                                                                                                                                                                                                                                                                                                                                                The invention relates to antisense inhibitors of genes essential to prokaryotic cellular proliferation, their use in identifying the genes, their use in the discovery of novel antibiotics, the essential genes themselves and the encoded proteins. The prokaryotes used are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Haselbeck R,
Yamamoto RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 3; Seq ID No 14009; 511pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antibiotics, comprise sequences of antisense nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAS56275.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-MAR-2001; 2001WO-US09180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-SEP-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Salmonella typhi.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antibiotic; antibacterial; drug design
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antisense; prokaryotic cellular proliferation protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Salmonella typhi cellular proliferation protein #307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU38416;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU38416 standard; Protein; 1362 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New polynucleotides for the identification and development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ELIT-) ELITRA PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27 - NOV - 2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            213 VFLQQQCSPWAM 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---QQASCIWSM 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HTPQQYFPYLPEE-LFPQYQIPTPLQPQQPFPQQ----PQQPLPRPQQPFPWQPQ-QPFP 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QPQEPI-PQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFP----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQQQPVLPQQP--PFSQQQQQPIP--PQQPPFSQQQQPVLLQQQIPFVHPSILQQLNPCK 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SQQQQ--PVLPQQPSFSQQQLPPFSQQLPPFSQQQPVLPQQPPFSQQQPPPFSQQLPPFS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-611495/70.
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sequence data for this patent did not form part
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2000US-207727P.

2000US-242578P.

2000US-255825P.

2000US-257931P.

2001US-269308P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ohlsen KL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zyskind JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              wall D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Trawick JD,
                                                                                                                                                                                                                                                                                                                                                                                                                       the essential
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of.
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RESULT 8
AAU01799
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
        peptides are useful for inducing tolerance in an individual and antagonists to the peptides are useful for treating or preventing coeliac disease in an individual and for producing an antibody specific to them or a wild-type sequence. A mutant gliadin protein (or its fragment of 15 amino acids in length) whose wild-type sequence can be modified by transglutaminase to a sequence that comprises the epitope, but which has been modified in such a way that it does not contain sequence which can be modified by transglutaminase to a sequence that comprise the epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                        The sequence represents wheat A-gliadin. A-gliadin derived peptides of the invention are used to test mammalian (preferably human) the invention are used to test mammalian (preferably human) susceptibility to coeliac disease (gluten intolerance). The peptides are contacted with a blood sample and T cell recognition measured, a positive T-cell recognition indicating a susceptibility to coeliac disease. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ttp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                            Diagnosing coeliac disease or susceptibility to the disease in an individual, by detecting in vitro or in vivo T cells which bind immunodominant T cell epitope obtained from naturally occurring h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Triticum aestivum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU01799;
                                                                                                                                                                                                                                                                       Claim 1; Page 52; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-300179/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS INNOVATION LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200125793-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T-cell binding; antagonist; transglutaminase; transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wheat; A-gliadin; epitope; coeliac disease; gluten intolerance;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wheat A-gliadin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU01799 standard; protein; 266 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  799 QYQQPQQPVAPQPQYQQPQQPVAPQPQ---YQQPQQ--PVAPQPQYQQPQQPTAPQDSLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  686 ROFAASQQQRYSGEQPAGAQPFSLDDLDFSPMKVLVDEGPHEPLFTPGVMPEST-PVQQP 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40 F-HTPQOYEPYLPEELFPQYQIPTPLQPQQPFPQQPQQPL-PRPQQPFPWQPQQPF-PQP 96
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QEPIPQQPQQPFP--QQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCI 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VAPQPQYQQPVAPQ----PQYQQPQQPVASQPQYQQPQQPVAPQPQYQ----QPQQPVAPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RQLNPCSQELQSPQQSYLQQPY-------PQNP-----YLPQKPFPVQQP 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1362 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                           Hill AVS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99GB-0023306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27.0%;
41.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Jewell DP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 244.5; DB zz,
Pred. No. 2.6e-13;
""smatches 57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1362;
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                                                                                                                                                                              a positive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                homolog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11;
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is useful for decreasing the ability of gliadin protein to cause Coeliac

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Qy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
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Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease. Nucleic acids encoding proteins antagonistic to the T-cell binding of the epitopes are useful for obtaining a transgenic plant cell or seed and for the production of a protein. The resultant crop plant is useful for obtaining a product of a wheat plant, especially grain, which is optionally processed into flour or another grain product. Food comprising the antagonistic protein is useful instead of a wild-type
                                                                                                                                                                                                                                                                 21-MAR-2000;
23-MAY-2000;
                                                                                                                                                                                                                                                                                                              21-MAR-2001; 2001WO-US09180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E. coli cellular proliferation protein #100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU34519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
         Example 3; Seq ID No 10112; 511pp; English.
                                          New polynucleotides for the identification and development of
                                                                                                                          Haselbeck R,
Yamamoto RT,
                                                                                                                                                                                                                                          23-OCT-2000;
                                                                                                                                                                                                                                                      26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                          27-SEP-2001.
                                                                                                                                                                                                                                                                                                                                                                     WO200170955-A2
                                                                                                                                                                                                                                                                                                                                                                                               Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                          antibiotic; antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense; prokaryotic cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU34519 standard; Protein; 1329 AA
                                     antibiotics, comprise sequences of antisense nucleic acids
                                                                                                                                                                   (ELIT-) ELITRA PHARM INC
                                                                                                                                                                                                 16-FEB-2001;
                                                                                                                                                                                                                            27-NOV-2000;
                                                                                 N-PSDB; AAS52378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179 IILHQQQKQQQPSSQVSFQQPLQQYPLGQGSFRPSQQNPQAQGSVQPQQLPQ 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 119 LQQQLIPCMDVVLQQHNIAHARSQVLQQSTYQLLQELCCQHLWQIPEQSQCQAIHNVVHA 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64 PQLPYP-QPQS-FP--PQQPYPQPQPQYS-QPQQPISQQQAQQQQQQQQQQQQQQQQQILQQI 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 QLNPCSQELQSPQQS----YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---- PQQPFPQQP-QQIIFQQPQQSYPV----QPQQPFPQ-----QPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YQIPTPLQPQQPFPQQPQLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ----- 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QLQPQNPSQQQPQEQVPLVQQQQFPGQQQQFPPQQPYPQPQPFPSQQ----PYLQLQPFPQ 63
                                                                                              2001-611495/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               266 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                          2000US-207727P.
2000US-242578P.
2000US-253625P.
2000US-257931P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                 2001US-269308P
                                                                                                                                                                                                                                                                                 2000US-191078P.
                                                                                                                                                                                                                                                                     2000US-206848P
                                                                                                                          Xu HH;
                                                                                                                                        Ohlsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.8%;
                                                                                                                                       Zyskind JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 234; DB 22;
Pred. No. 4.2e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                          proliferation protein;
design.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                        Wall D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50;
                                                                                                                                        Trawick JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94;
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PA XX DR XX DR XX DR XX PT PT PT PT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB44499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to identify proteins used in proliferation, to express these proteins, and to obtain antibodies capable of binding to the expressed proteins. The proteins can be used to screen compounds in rational drug discovery programmes. The antisense nucleic acid sequence is also useful to screen for homologous nucleic acids which are required for cell proliferation in a wide variety of organisms. The present sequence represents an essential prokaryotic cellular proliferation protein. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to antisense inhibitors of genes essential to prokaryotic cellular proliferation, their use in identifying the genes, their use in the discovery of novel antibiotics, the essential genes themselves and the encoded proteins. The prokaryotes used are Escherichia coll, Staphylococcus aureus, Salmonella typhi, Klebsiella pneumoniae, Pseudomonas aeruginosa and Enterococcus faecalis. The invention is also useful for the identification of potential new targets for antibiotic development. The antisense nucleic acids can also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                          N-PSDB; AAC79353
                                                                                                                                                                                                                        07-APR-1999;
                                                                                                                                                                                                                                                              06-APR-2000; 2000WO-US09110
                                                                                                                                                                                                                                                                                                                                                                                                            viral resistance; cosuppression
                                                                                                                                                                                                                                                                                                                                                                                                                                 Plant viral movement protein; transport; transgenic plant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plant viral movement protein SEQ ID 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB44499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB44499 standard; Protein; 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                              Krebbers E,
                                                                                                                                                                                   (DUPO ) DU PONT DE NEMOURS & CO E I.
                                                                                                                                                                                                                                                                                                                                      WO200060088-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109 PQQPQQPFPQQPQQI----IFQQPQQSYPV-QPQQPFP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                747 ΑΡΩΩΩΥΩΩΡΩΩΡΥΡΡΩΡΩΥΩΩΡΩΩΡΥΑΡΩΡΩΥΩΩΡΩΩΡΥΑΡΩΩΥΩΩΡΩΩΡΥ--ΑΡΩΩΩΥ 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           689 QFAQTQQQRYSGEQPAGANPFSLDDFEFSPMKALLDDGPHEPLFTPIVEPVQQPQQ--PV 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50 LPEELFPQYQIPTPLQPQQPFPQQPQQPLPRPQQP-FPWQPQQPFPQPQEPIPQQPQQPF 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 QELQSPQQSYL-QQPYPQNPYL-------PQKPF--PVQQPFHTPQQYFPY 49
                                                                                                           2000-638467/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -QQPQQPVAPQPQDTLLHPLLMRNGDSRPLHKPTTPLP 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1329 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                Weng Z,
                                                                                                                                                                                                                        99US-0128092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24.0%;
                                                                                                                                                  Cahoon RE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 217; DB 22; Length 1329; Pred. No. 6.7e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9;
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Novel viral movement polypeptides and polynucleotides useful in field of plant molecular biology, for producing transgenic plants, to prepar antibodies and in immunological screening of cDNA expression libraries

to prepare

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RESULT 11
AAM24322
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                encoding the plant viral movement proteins are useful for positive selection of a transformed cell. The proteins are useful in the field of plant molecular biology, and in the preparation of antibodies against the proteins. The proteins are also useful for isolating cDNAs and genes encoding homologous proteins from the same or other plant species, and to create transgenic plants in which the protein is presented at higher or lower levels than normal or in cell types or developmental stages in which they are not normally found. The proteins and nucleotide sequences may be used to control cosuppression and engineer plant virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polynucleotide sequences AAC79348-C79375 encode plant viral movement proteins AAB44494-B44520. Some plant viruses have been shown to be able to establish systemic infections via movement proteins that utilise existing plant pathways to traffic macromolecules to surrounding cells. Proteins such as those of the invention are similar to viral movement proteins that function in the transport of nucleic acids from cell to cell. The plant viral movement proteins are useful for obtaining a nucleic acid fragment encoding a viral movement protein. Polynucleotides
                                                                                                                                                                                                                                                                                                                                          tomato; monkey; dog; sea urchin; expressed sequence tag; Ediagnostics; forensic test; gene mapping; genetic disorder biodiversity; gene therapy; nutrition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAM24322 standard; Protein; 1299 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                           25-JAN-2000; 2000US-0491404.
17-JUL-2000; 2000US-0617746.
03-AUG-2000; 2000US-0631451.
15-SEP-2000; 2000US-0663870
                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                  Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Human EST encoded protein SEQ ID NO: 1847.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAM24322;
Tang YT, Liu C, Z. Cao Y, Drmanac RA,
                                                                                                                                                                                           25-JAN-2001; 2001WO-US02687
                                                                                                                                                                                                                                02-AUG-2001.
                                                                                                                                                                                                                                                                     WO200154477-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-OCT-2001 (first entry)
                                                        (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       259 PKPQGQPYPPQPQGQPYPPQPYGQTYPPPPKGQPTYPPAPYPSTYPPAP 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102 QQPQ-QPFPQQPQ-QPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140 STTHSVLPVPVPAVPYAAPSPSYALPPAGYPAVPPYQSYPASHVPAPYPTSAYPHPPPSL 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200 LARDVEHAAYPPTSTTYPPQPYPPQPQGQTYPPQPQGETYQPQPQRETYP-PQPQVQPYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55 FPQ-----YQIPTPLQPQQPFPQQPQ-----QPLPRPQQPFPWQPQQPFPQPQ-EPIP 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13 SPQQSYLQQPYPQNPY------LPQKPFPVQQPF-----HTPQQY----FPYLPEEL 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 Similarity
57; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              308 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                  Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23.5%; Score 213; DB 21; 33.7%; Pred. No. 3.4e-11;
  Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                  Qian XB,
    Werhman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                  Wang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63;
                    Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                    æ
                    Asundi V;
                                                                                                                                                                                                                                                                                                                                                                                    EST;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                           AAR26049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention provides the protein and coding sequences of novel proteins from a variety of organisms, including human, dog, cat, horse, cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fly, sea urchin and tomato. These were derived from expressed sequence tags (ESTs) from the organism of interest. They can be used in diagnostics, forensics, gene mapping, identification of mutations, to assess biodiversity, and for nutritional purposes. The present sequence is a
                                                                                                                                                                                                                                                                                                                                  Megakaryocyte colony stimulating factor; secretion signal; meg-CSF stability; proteolytic cleavage; adhesion; alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                               MSF precursor
                                                                                                                                                                                                                                                                                                                                                                                                           02-FEB-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR26049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR26049 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 20; Page 1198-1201; 1275pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antibodies and research use -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Isolated polypeptide for treatment of diseases, diagnostics, raising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAH98981
                                                                                                                                                                       Region
Region
                                                                                   Region
                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                       Synthetic
                            Region
                                                                                                                 Region
                                                                                                                                            Region
                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   446 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           506 PAPTTTKEPSPTTPKEPAP 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-476164/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1299 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
1266
                                                                                                                                                                                                     /label= Exon_II
67..107
                                                          1166
                                                                                                                                                                          /label= Exon_III
107..157
              /label=
                                                                                                     /label=
                                                                                                                   007
                                                                                                                                                         /label= Exon_IV
                                                                                                                                                                                                                                              /label= Exon_I
                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                          -Tabet-
                                                                                                                                /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.5%;
                                                                                                                                              200
                                                            1212
                                                                                                                              Exon_V
           Exon_IX
                                          Exon_VIII
                                                                       Exon_VII
                                                                                                  Exon_VI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 204; DB 22;
Pred. No. 9.1e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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DЪ
                                                                                  DЬ
                                                                                                                       Qγ
                                                                                                                                                                    В
                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                             (meg-CSF). Exon I contains the initiating methodies, and encodes a Classical mammalian protein secretion signal sequence. The sequence encoding the original meg-CSF includes exons II-V and is thought to terminate in the region between amino acid residues 134 - 147. The CC primary transcript of this gene may be cleaved in different ways to yield a family of mRNA's each encoding a different MSF protein. Exons CC V and VI are thought to be related to the activity of the factor and are also implicated in the stability, folding and processing of the molecule. These exons are also thought to play a role in the observed synergy of MSF with other cytokines. Exons V - XII are believed to be implicated in the processing or folding of the appropriate structure of the resulting factor, ie. one or more of these exons may contain complete which direct proteolytic cleavage, adhesion, organisation of the cellular matrix or extracellular matrix processing. Both naturally coccuring and non-naturally coccuring MSF's may be characterised by various combinations of alternatively spliced exons from this sequence, with the exons spliced together in differing orders to form different
                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence given is a full length translation from the megakaryocyte stimulating factor (MSF) precursor. The sequence covered by exons II, III and IV encodes megakaryocyte stimulating factor (MSF). This sequence is modified by the addition of an N-terminal sequence encoding a secretory leader, an initiating methionine proceeding exon II and a terminating codon following exon IV. The CDNA sequence given contains sequences derived from human megakaryocyte colony stimulating factor (meg-CSF). Exon I contains the initiating methionine, and encodes a contains the initiating methionine, and encodes a
                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1, 2 and 3; Fig 1; 87pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JAN-1992;
                                                                                                                                                                                                                                                                                                                                                                                       members of the MSF family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bacterial and viral infections, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human mega-karyocyte stimulating factors - for immune deficiencies, cancer, exposure to radiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1992-284660/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-SEP-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JAN-1991;
                                     131 SYPVQPQQPFPQQP-QPVP 148
                                                                               446 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 505
                                                                                                                                                                    394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 445
                                                                                                                                                                                                            12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                          QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                        42;
                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                             1404 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gesner IG,
                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91US-0643502
91US-0757022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92WO-US00433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= Exon_XI
1373..1404
/label= Exon_XII
                                                                                                                                                                                                                                                                           22.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hewick RM,
                                                                                                                                                                                                                                                        28;
                                                                                                                                                                                                                                                      Score 204; DB 13;
Pred. No. 9.8e-10;
8; Mismatches 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jacobs K,
                                                                                                                                                                                                                                                        59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Turner K;
                                                                                                                                                                                                                                                                                              Length 1404;
                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating or drugs,
                                                                                                                                                                                                                                                      10;
                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                      4;
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RESULT 13

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4

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AAB60568

AAB60568

XX AAB6

XX AAB6

XX AAB6

XX Huma

XX Huma

XX Homc

X
   Qy
                                                                               B
                                                                                                                                              Ω
                                                                                                                                                                                                                          Дb
                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a method of treating osteoarthritis via the administration of a composition comprising the camptodactyly-arthropathy-coxa vara-pericarditis (CACP) protein.

The composition may further comprise a local anaesthetic. The composition of the invention may be administered via intra-articular or intravenous injection. The human CACP protein is identified in the invention as being megakaryocyte stimulating factor (MSF). The gene encoding CACP protein (MSF) is located on chromosome 1923-31, and mutations in this gene are responsible for the heritable disorder camptodactyly-arthropathy-coxa vara-pericarditis, in which patients have synovial hyperplasia without evidence of inflammation. CACP protein (MSF) acts as a synovium lubricant, and can be used to lubricate tissue and joints in the treatment of osteoarthritis. The composition may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              applied to reduce the symptoms of osteoarthritis (e.g., joint pain, loss of range of movement or joint damage). The present sequence represents human megakaryocyte stimulating factor (MSF, CACP protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New composition comprising the camptodactyly-arthropathy-coxa vara-pericarditis protein in combination with an anesthetic, usersting osteoarthritis, or as lubricants of tissue and joints
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; CACP protein; camptodactyly-arthropathy-coxa vara-pericarditis; MSF; megakaryocyte stimulating factor; synovial lubricant; chromosome 1923-31; osteoarthritis; joint lubrication; osteopathic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   specification,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page -; 34pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-182721/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-JUL-2000; 2000US-0145328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUL-2000; 2000WO-US20002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200107068-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiarthritic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human megakaryocyte stimulating factor (MSF, CACP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB60568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB60568 standard; Protein; 1404 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence was therefore obtained from GenBank (U70316).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYCA-) UNIV CASE WESTERN RESERVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                      394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 445
                                                                           446 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 505
                                                                                                                                                  72
                                                                                                                                                                                                                                                                                         12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                              QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence is not given in its entirety in figure 4 of the fication, although a GenBank accession number was given. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1404 AA;
                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0145328
                                                                                                                                                                                                                                                                                                                                                                                                        22.5%;
                                                                                                                                                                                                                                                                                                                                                                     28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                    Score 204; DB 22; Pred. No. 9.8e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1404;
                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                         10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         useful for
                                                                                                                                                                                                                                                                                                                                                                 Gaps
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506 PAPTTTKEPSPTTPKEPAP 524

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RESULT 14
AAB29773
                                                                                                                                                               B
                                   δÕ
                                                                                                                                                                                                            CC lubricating molety and has a polypeptide sequence comprising 1.76 CC repeats of a molety and has a polypeptide sequence comprising 1.76 CC (AAB29774). The invention also relates to a nucleic acid encoding a CC human MsF-derived tribonectin; a biocompatible composition comprising a CC human tribonectin for inhibiting tissue adhesion formation; and a method CC of diagnosing osteoarthritis or a predisposition to osteoarthritis by measuring the amount of MSF or its fragment in a biological sample of a mammal, wherein an increased amount of MSF compared to a control CC indicates the presence of or predisposition to developing costeoarthritis. The tribonectin and DNA encoding it are useful in the CC treatment of osteoarthritis, where they may be used for lubricating CC mammalian joints, such as articulating joints of humans, dogs or horses. CC The tribonectin, when formulated as a membrane, foam, gel or fibre, is CC useful for inhibiting adhesion between two surfaces such as the injured CC tissues of a mammal, where the injury is caused by a surgical insertion CC or trauma, or an artificial device e.g., an orthopaedic implant. In CC particular, one of the surfaces is pericardial tissue. DNA encoding a CC turbonectin may be used in gene therapy. The present sequence represents
                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human MSF; megakaryocyte stimulating factor: tribonectin; alternative splicing; joint boundary lubricant; 0-linked oligosac osteoarthritis; tribosupplementation; tissue adhesion inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     alternative splicing of the human MSF (megakaryocyte stimulating factor) gene. The tribonectin has at least one O-linked oligosaccharide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Page 7; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel tribonectin polypeptide useful as lubricant for treating osteoarthritis, comprises O-linked lubricating moiety
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200064930-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          osteopathic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human megakaryocyte stimulating factor (MSF), SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB29773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB29773 standard; Protein; 1404 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a human tribonectin which is a product of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAC81498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (RHOD-) RHODE ISLAND HOSPITAL LIFESPAN PARTNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-APR-2000; 2000WO-US10953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              friction coefficient reduction; gene therapy; antiarthritic;
394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 445
                                     12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-024673/03
                                                                                                   Similarity
                                                                                                                                                               1404 AA;
                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0298970.
                                                                                                 22.5%;
                                                                               28;
                                                                                                 Score 204; DB 22;
Pred. No. 9.8e-10;
                                                                               Mismatches
                                                                               59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O-linked oligosaccharide;
                                                                                                                   Length 1404;
                                                                               Indels
                                                                               10;
                                                                             Gaps
                                                                               4.
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В QΥ

405 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 456

12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71

Matches Query Match

42;

Conservative

22.5%; Score 204; DB 22; 30.2%; Pred. No. 9.9e-10;

Length 1415; Indels

10;

Gaps

4;

28; Mismatches

Local Similarity

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  В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
                             CC polypeptides and antibodies to the polypeptides are useful for determining the presence of or predisposition to a disease associated CC with altered levels of polypeptide. The polypeptides are also useful for CC identifying agents (agonists and antagonists) that bind to them. Cells CC expressing the proteins are useful for identifying a therapeutic agent CC to use in treatment of a pathology related to aberrant expression or CC physiological interactions of the polypeptides. Vectors comprising CC the nucleic acids encoding the polypeptides and cells genetically CC engineered to express them are also useful for producing the proteins. They may be used to therapy, and can be useful in genetic vaccination, testing and CC therapy, and can be useful as nutritional supplements. They may be used to increase stem cell proliferation; to regulate haematopoiesis; and in CC immune suppression and/or nerve tissue growth or regeneration; CC immune suppression and/or stimulation; as anti-inflammatory agents; and CC intreatment of leukaemias. AAU29510-AAU33304 represent the amino acid CC sequences of novel human secreted proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acids encoding a range of human polypeptides, useful in genetic vaccination, testing and therapy \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-APR-2000; 2000US-0552929
26-JAN-2001; 2001US-0770160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200179449-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; vaccination; gene therapy; nutritional supplement; stem cell proliferation; haematopolesis; nerve tissue regeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel human secreted protein #2753.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU32262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU32262 standard; Protein; 1415 AA
Sequence
                                                                                                                                                                                                                                                                                                                                                                         The invention relates to novel human secreted polypeptides. The
                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 20; Page 573; 765pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-611725/70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-APR-2001; 2001WO-US08656.
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Search completed: May 27, 2003, 14:45:50 'Job time: 52 secs

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Result
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Sequence 2, Appli
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Sequence 74, Appl
Sequence 104, Appl
Sequence 14, Appl
Sequence 42, Appl
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Sequence 60, Appl
Sequence 40, Appl
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2 RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59 29.0%; Score 262.5; DB 2; 46.8%; Pred. No. 5.2e-18; tive 10; Mismatches 51;

Indels 23; Gaps Length 1162;

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Query Match Best Local Similarity 46.8 Matches 74: Conservative

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-088 SUL	
Sequence 2, Application US/08 Sequence 2, Application US/08 Patent No. 5948676 GENERAL INFORMATION: APPLICANT: Bohenzky, Roy. APPLICANT: RUSSO, James J APPLICANT: Bedelman, Isido APPLICANT: Bedelman, Isido APPLICANT: Bedelman, Isido APPLICANT: RUSSO, James J CORRESSE: COOPER 6 DUN STREET: 1185 AVENUE of INVENTION: BOOG NUMBER OF SEQUENCE 5: 21 CORRESSEE: COOPER 6 DUN CITY: NEW YOR'R CITY: NEW YOR'R COMPUTER READABLE FORM: COMPUTER READABLE FORM: COMPUTER: IDM PC COMPATION OF THE PO-DO SOFTWARE: PATENTION NUMBER: US/ FILING DATE: CURSSIFICATION NUMBER: US/ FILING DATE: APPLICATION NUMBER: US/ FILING DATE: APPLICATION INFORMATION NAME: White, John P. REGISTRATION INFORMATION REGISTRATION INFORMATION TELEPHONE: 212-278-0525 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 1162 amino acids TOPOLOGY: linear MOLECULE TYPE: protein	8404234563042345
1 1 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 28 - 323. 23. 23. 23. 23. 23. 23. 23. 23. 23	15 1466 1466 1446 1443 1443 1443 1443 1443 1443
1 28-323A-2	11000000000000000000000000000000000000
128-323A-2 PERAL INFORMATION PERLICANT: BOHEN PPLICANT: BOHEN STREET: OF INVENTIO CORRESPONDENCE AD ADDRESSEE: COA ADDRESSEE: COA ADDRESSEE: COA ADDRESSEE: LOW YOR COUNTRY: U.S.A CITY: New YOR COUNTRY: U.S.A ZIP: 10036 COMPUTER READABLE MEDIUM TYPE: EM COMPUTER: BOHE SOFTWARE: Pate SOFTWARE: LIM ADDITION OF TIME SOFTWARE: PATE SOFTWARE: LIM ADDITION OF TIME SOFTWARE SO	
E 10 AA 11 A TOO A	115. 115. 115. 115. 115.
23A-2 2, Application US/08728 2, Application US/08728 1NPORMATION: 1NPORMATION: ANT: Bohenzky, Roy A. Ediman, Isidore PONDENCES: 21 PONDENCES: Dunham ET: 1185 Avenue of the ING YORK E: New YORK E: New YORK E: New YORK E: New YORK E: POOPER & DUNHAM ATING SYSTEM: PC-DOS/M WARE: PATENTION DATA: 1036 ATING SYSTEM: PC-DOS/M WARE: PATENTION DATA: 1167/ATION NUMBER: US/08/ NG DATE: SIFICATION NUMBER: US/08/ NG DATE: SIFICATION NUMBER: 28,67 RENCE/DOCKET NUMBER: 00 MMUNICATION INFORMATION: ED/MACHING SEQ ID NO: 2: CE CHARACTERISTICS: H: 1162 amino acids 1162 amino acids 123A-2	125778881111222660
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US/08728323A an ROY A. mes J. Isidore S. Itrick S. Sarcoma-Associat Encoding Same An 21 Mu: y disk compatible pc-DOS/MS-DOS PC-DOS/M	B 4 US-09-184-826-2 9 4 US-09-25-188-20 11 5 PCT-US93-08186-10 2 US-08-93-118-7 2 US-08-93-118-7 2 US-08-93-118-7 2 4 US-09-061-799-2 4 1 US-08-27-536-2 4 US-09-071-035-22 1 4 US-09-071-035-22 1 5 PCT-US95-04682-2 1 US-08-894-017-23 2 US-08-894-017-23 5 US-08-894-017-23 6 1 US-07-638-431-2 6 5 PCT-US92-00018-2 6 5 US-08-25-742-6 7 US-08-273-273-5 8 ALIGNMENTS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/298,568
CURRENT FILING DATE: 1999-04-21
EARLIER APPLICATION NUMBER: US 60/109,422
EARLIER FILING DATE: 1998-11-19
NUMBER OF SEQ ID NOS: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: RHADINO VIRUS LANA ACTS IN TRANS ON A UNIT OF RHADINO TITLE OF INVENTION: VIRUS DNA TO MEDIATE EFFICIENT EPISOME PERSISTENCE FILE REFERENCE: 16412-10001R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Kieff, Elliott D. APPLICANT: Ballestas, Mary E. APPLICANT: Kaye, Kenneth M.
                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver. 2.0
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Kaposi's sarcoma-associated herpesvirus
                                                                                                                                            TITLE OF INVENTION: IS
TITLE OF INVENTION: EN
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
COMPUTER READABLE FORM:
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                                  COUNTRY:
                                                                                                       ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
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                                                      STATE:
                                                                       CITY: ARLINGTON
                                                                                     STREET:
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1755 S. JEFFERSON DAVIS HIGHWAY
                                                                                                                                                                             WERCHITELLI, CINZIA
CARDELLI, LUISA ERCOLI
VENTION: ISOLATION AND CHARACTERIZATION OF A GENE
VENTION: ENCODING A LOW MOLECULAR WEIGHT GLUTENIN
                                                                                                                                                                                                                                                      PORCEDDU, ENRICO
                                      USA
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46.8%; Pred. No. 5.2e-18;
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                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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                                                                                                                                                              STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
APPLICATION NUMBER:
                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                     ADDRESSEE:
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                                                                                                                                                              Massachusetts
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Sequence 14, Application US/07757022B Patent No. 6433142 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M. TITLE OF INVENTION: Megakaryoc; NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 2:
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FILING DATE: 19-DEC-1996
ATTORNEY/AGENT INFORMATION:
NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24.618
REFERENCE/DOCKET NUMBER: 2264-0201-0x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
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                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       157 QQQQPVLPQQP--PFSQQQQQPIP--PQQPPFSQQQQPVLLQQQIPFVHPSILQQLNPCK 212
                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99 SQQQQ--PVLPQQPSFSQQQLPPFSQQLPPFSQQQPVLPQQPPFSQQQPPPFSQQLPPFS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41 HTPQQYFPYLPEE-LFPQYQIPTPLQPQQPFPQQ----PQQPLPRPQQPFPWQPQ-QPFP 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39 QQQPCSQQQQPPLSQQQQPPFSQQQQPPFSQQQQPVLPQQPSFSQQQLPPFSQQQQPPF 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 28.2%;
Local Similarity 41.7%;
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TELEFAX: 703-413-2220
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                                                                                                                                                                                                                                                                                         87 CambridgePark Drive
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                                                                                                                          Floppy disk
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US/07/757,022B
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Pred. No. 7.1e-18;
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US-07-757-022B-84
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APPLICATION NUMBER: US 0.
FILING DATE: 29-JUN-1990
                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                  ZIP: 02140
COMPUTER READABLE FORM:
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REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
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APPLICATION NUMBER: US 0
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                         APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M. TITLE OF INVENTION: Megakaryc NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        195 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 246
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                  STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
CLASSIFICATION:
                APPLICATION NUMBER: FILING DATE: 19910
                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                       ADDRESSEE:
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                                      US/07/757,022B
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RESULT 6
US-07-757-022B-74
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INFORMATION FOR SEQ ID NO:
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APPLICATION NUMBER: US 07/
FILING DATE: 08-AUG-1989
ATTORNEY_AGENT INFORMATION:
NAME: CSerr, Luann
REGISTRATION NUMBER: 31,82
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LENGTH: 1022 amino acids
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APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: ME NUMBER OF SEQUENCES: 1 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
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TELECOMMUNICATION INFORMATION:
                    CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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Local Similarity 30.2%; Pred. No. 2.5e-12;
hes 42; Conservative 28; Mismatches 59;
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APPLICATION NUMBER:
                                                               APPLICATION NUMBER: FILING DATE: 19910
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(617)876-5851
OR SEQ ID NO: 84:
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08-AUG-1989
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  US 07/643,502
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REFERENCE/DOCKET NUMBER: GI 5
TELECOMMUNICATION: INFORMATION:
TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
TELEFAX: 750 TD NO: 74:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                    ZIP: 0214v
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
TRM PC COM
             CLASSIFICATION: 530
PRIOR APPLICATION UARTA:
APPLICATION UMBER: US 07/643,502
FILING DATE: 18-JAN-1991
                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Turner, Katherine
APPLICANT: Hewick, Rodney M.
TITLE OF INVENTION: Megakaryo
NUMBER OF SEQUENCES: 143
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ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 311
                                                                                             APPLICATION NUMBER: US
FILING DATE: 19910910
                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                 CITY: Cambridge
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REGISTRATION NUMBER: 31,822
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AMINO ACID
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08-AUG-1989
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                                                                                                                                                                                                                                                                                                                                                                                                                   Megakaryocyte Stimulating Factors
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; Patent No.
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Best Local :
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APPLICANT: GESNEY, Thomas G.
APPLICANT: Clark, Stephen C.
APPLICANT: Turner, Katherine
APPLICANT: Hewick, Rodney M.
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                               FILING LA...
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
APPLICATION NUMBER: 18-JAN-1991
            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
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REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
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NUMBER OF SEQUENCES:
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ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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                                                                                                                                  APPLICATION NUMBER: US FILING DATE: 19910910
                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                             SOFTWARE:
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REGISTRATION NUMBER:
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5. 6433142
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(617) 876-5851
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29-JUN-1990
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US-07-757-022B-44
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INFORMATION FOR SEQ ID NO: 104:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: protein 7-757-022B-104
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 29 JUN-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy COMPUTER: IBM PC com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M.
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APPLICATION NUMBER:
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STREET: 87
CITY: Camb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FITLE OF INVENTION: Megakaryocyte Stimulating Factors
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REGISTRATION NUMBER: 31,822
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FILING DATE: 19910910
                                                                                                                                                                 CLASSIFICATION:
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                                                             US 07/546,114
                                                                                                                                                                                                      US/07/757,022B
                                                                                                                          US 07/643,502
    US 07/457,196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 204; DB 4; Length 1140;
Pred. No. 2.9e-12;
28; Mismatches 59; Indels 1
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US-07-757-022B-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description us/07757022B Patent No. 6433142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 42; Conserv
                                                                CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: 11
MOLECULE TYPE:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0 FILING DATE: 08-AUG-1989 ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION NUMBER: US 07/390,901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine
                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hewick, Rodney M.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                      FILING DATE: 29-JUN-
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             260 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 311
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 19910
                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 QOPQOPLP-RPQOPFPWOPQOPFPQPQEPIPQOPQOPFPQQPQQPFPQQPQQIIFQQPQQ 130
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                APPLICATION NUMBER: US 07/457,196 FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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Pred. No. 3.2e-12;
28; Mismatches 59; Indels 1
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RESULT 11
US-07-757-022B-142
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 42:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/757,022B
                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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LENGTH: 1311 amino acids
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FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
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                                  PRIOR APPLICATION DATA:
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                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M.
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                                                          APPLICATION NUMBER: FILING DATE: 29-DEC
                                                                                                                                                                             APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
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CTTY: Cambridge
                                                                                                                  APPLICATION NUMBER: US 07/546,114 FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                          CLASSIFICATION:
FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
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                   APPLICATION NUMBER:
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Clark, Stephen C.
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08-AUG-1989
  08-AUG-1989
                                                        29-DEC-1989
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                                                                         US 07/457,196
                 US 07/390,901
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RESULT 12
US-07-757-022B-50
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Patent No. 6433142
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                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Gesner,
APPLICANT: Clark,
APPLICANT: Turner,
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LENGTH: 1313 amino acids
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TELEFAX: (617)876-5851
                                                                                                                 APPLICATION NUMBER: US 07 FILING DATE: 29-JUN-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18 JAN 1991
PRIOR APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  131 SYPVQPQQPFPQQP-QPVP 148
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      303 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 354
                                                                                                                                                                                                                                                            FILING DATE: 1
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                     APPLICATION NUMBER: FILING DATE: 08-AU
                                                                               APPLICATION NUMBER: US 0 FILING DATE: 29-DEC-1989
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REFERENCE/DOCKET NUMBER: GI
                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                              02140
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gesner, Thomas G. Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Turner, Katherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hewick, Rodney M.
VENTION: Megakaryocyte Stimulating Factors
                                                                                                                                                                                                                                                                                                                                       PatentIn Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                              19910910
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                       08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22.5%; Score 204; DB 4; Length 1313; 30.2%; Pred. No. 3.3e-12;
                                        us 07/390,901
                                                                                                                                                          US 07/546,114
                                                                                                                                                                                                                                                                                                   US/07/757,022B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28; Mismatches
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GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-DO:
SOFTWARE: PATENTIN Relace
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/
FILING DATE: 19910910
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REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 1314 amino acids
                                                                                                                                                                                                                                         CLASSIFICATION: 530
PRIOR APPLICATION UNBER: US 07/643,502
FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M.
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                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                   PRIOR APPLICATION DATA:
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                                                     ATTORNEY/AGENT INFORMATION:
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STREET: Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72 QQPQQPLP-RPQQPFPWQPQQPFPQPPQEPIPQQPQQPFPQQPPPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                NAME: Cserr, Luann REGISTRATION NUMBER:
                                                                                                                                FILING DATE:
                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46, Application US/07757022B
o. 6433142
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                                                                                                                                                                                                                                                                                                                                                                                            IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genetics Institute, Inc
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                                                                                                                                                                                                                                                                                                                                                                                                                               Floppy disk
                                                                          08-AUG-1989
                                                                                                                                29-DEC-1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Megakaryocyte Stimulating Factors
                                                                                        US 07/390,901
                                                                                                                                                us 07/457,196
              31,822
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28; Mismatches
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Pred. No. 3.3e-12;
8; Mismatches 59; Indels 10
  GI 5190
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RESULT 14
US-07-757-022B-60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 60, Application US/07757022B Patent No. 6433142
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TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
                                                                      APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
NAME: CSerr, Luann
                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 29-DEC-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: PatenLIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genetics Institute, Inc.
               REFERENCE/DOCKET NUMBER: GITELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
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                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Megakaryocyte Stimulating Factors
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STATE: Massachus
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                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 18-JA
                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE:
TELEPHONE:
                                                    NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
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Pred. No. 3.4e-12;
28; Mismatches 59; Indels 1
                                     GI 5190
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RESULT 15
US-07-757-022B-48
; Sequence 48, Application US/07757022B
----nt No. 6433142
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TELEFAX: (617)876-585: INFORMATION FOR SEQ ID NO:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
FRIOR APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 19910910
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION UNMER: US 07/643,502
FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IDM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Megakaryocyte Stimulating Factors
NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
ADDRESSE: Genetics Institute, Inc.
STREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 1320 amino aci
                  REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEPAX: (617)876-5851
                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422 PAPTITKEPSPTTPKEPAP 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362 TTPKEPAPTTPKEPAPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          310 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 361
                                                                                                NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: U: FILING DATE: 19910910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 8/ Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 30.29 nes 42; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : 1320 amino acids
AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Massachusetts
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22.5%; Score 204; DB 4; Length 1320; 30.2%; Pred. No. 3.4e-12; Itive 28; Mismatches 59; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/07/757,022B
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                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 1354 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protein
456 PAPTITKEPSPTTPKEPAP 474
                                              131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                         396 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 455
                                                                                                                                                                                                               344 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 395
                                                                                                                                                                                                                                                              12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                       72 QOPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                             / Match 22.5%; Score 204; DB 4; Length 1354;
Local Similarity 30.2%; Pred. No. 3.5e-12;
ses 42; Conservative 28; Mismatches 59; Indels 10;
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4;

Search completed: May 27, 2003, 14:48:11 Job time : 26 secs

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Result
No.
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Maximum DB seq length: 200000000
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                    Score
                                                                                                                                                                                                                                                                                                                                                                                  Published_Applications_AA:*

1: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*
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Match
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  GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                    Length DB
                                                                                                                                  296
1329
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1038
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US-09-815-242-14009
US-09-789-054A-10
US-09-789-054A-10
US-09-815-242-10112
US-09-1815-242-10112
US-09-1815-242-10112
US-09-1815-242-10112
US-10-124-557-84
US-10-124-557-104
US-10-124-557-42
US-10-124-557-42
US-10-124-557-42
US-10-124-557-46
US-10-124-557-46
US-10-124-557-48
US-10-124-557-60
US-10-124-557-60
US-10-124-557-62
US-10-124-557-62
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                                                                                                                                                                                   Sequence 14009, A Sequence 10, Appl Sequence 10112, A Sequence 14, Appl Sequence 84, Appl Sequence 84, Appl
                                                                                                                                                                                                                                                                    Description
                      Sequence 74, Appl
Sequence 58, Appl
Sequence 104, Appl
Sequence 42, Appl
Sequence 42, Appl
Sequence 50, Appl
Sequence 60, Appl
Sequence 60, Appl
Sequence 48, Appl
Sequence 40, Appl
Sequence 40, Appl
Sequence 52, Appl
              Sequence
 62,
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Sequence 13, Appl	10 US-09-735-367B-13	356	16.6	150.5	45
Sequence 199, App	o US	921	16.7	151	44
Sequence 106, App	-008-800-			151	43
Sequence 1633, Ap	US			152	42
Sequence 70, Appl	US-09-791-		16.9	153	41
Sequence 5433, Ap	9 US-09-738-626-5433	407		154	40
Sequence 91, Appl	9 US-10-021-955-91	370	17.2	155.5	39
•	9 US-10-021-955-90	370		156	38
Sequence 83, Appl	9 US-10-021-955-83			156	37
Sequence 78, Appl				156	36
Sequence 2, Appli	10 US-09-735-367B-2			156.5	35
Sequence 3, Appli	10 US-09-735-367B-3			156.5	34
Sequence 20, Appl	9 US-09-789-054A-20			157	ω ω
Sequence 19, Appl	9 US-09-957-995A-19		. 4	157.5	32
Sequence 125, App	9 US-10-034-934-125			157.5	31
Sequence 6, Appli	9 US-09-789-054A-6		œ	161.5	30
Sequence 240, App	12 US-10-062-254-240			163.5	29
Sequence 4, Appli	9 US-10-077-584-4		N	164.5	28
Sequence 274, App	10 US-09-216-393-274			167.5	27
Sequence 71, Appl			5	167.5	26
Sequence 126, App			.9	171.5	25
Sequence 1, Appli	12 US-10-117-121-1		9.9	180	24
Sequence 4, Appli	9 US-10-197-666A-4		0.ω	183.5	23
Ņ	9 US-09-284-320-2			183.5	22
Sequence 2, Appli	9 US-10-020-215-2	1274	0.6	187	21
Sequence 22, Appl	9 US-09-789-054A-22	312	0.9	189	20

ALIGNMENTS

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US-09-815-242-10112; Sequence 10112, Application US/09815242; Patent No. US20020061569A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Microsoft Office 97
SEQ ID NO 10
LENGTH: 296
                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: PLANT GENES ENCODING DR1 AND DRAP1, A GLOBAL REPRESSOR COMPLEX OF TITLE OF INVENTION: TRANSCRIPTION
FILE REFERENCE: BB1107 US CIP
CURRENT APPLICATION NUMBER: US/09/789,054A
CURRENT FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Allen, Sta
APPLICANT: Zhu, Qun
           APPLICANT:
                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/1
PRIOR FILING DATE: 1997-08-15
NUMBER OF SEQ ID NOS: 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 09/48558
PRIOR FILING DATE: 2000-02-11
PRIOR APPLICATION UNMBER: PCT/US98/16688
PRIOR FILING DATE: 1998-08-12
                                                                                                                                           APPLICANT:
                                                                                                                                                                             APPLICANT: Haselbeck, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        143 PKEPEPEAQQQTQ-QPPQPQLHPQPQQPLQPQLQLH-PQ-----PQQQ-PSQLH 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         799 QYQQPQQPVAPQPQYQQPQQPVAPQPQ---YQQPQQ--PVAPQPQYQQPQQPTAPQDSLI 853
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                686 RQFAASQQQRYSGEQPAGAQPFSLDDLDFSPMKVLVDEGPHEPLFTPGVMPEST-PVQQP 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                249 LQLQSQLHPQPQQPPQLQPQPQLHQQPQP 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                118 QQPQQIIFQQPQQSYPVQPQQPFPQQPQP 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189 PQQLLHPQSQQTPQPQPQVHPQPQQPPQLQPQPQLLQQPQLPQQLQPQSQLPPQPQQPPQ 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66 PQQPF-PQQPQQPLPRPQ-QPFPWQPQQPFPQP---QEP-IPQ--QPQQPFPQQPQQPFP 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97 QEPIPQQPQQPFP--QQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCI 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40 F-HTPQQYEPYLPEELEPQYQIPTPLQPQQPEPQQPQQPL-PRPQQPFPWQPQQPE-PQP 96
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Local Similarity 41.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 PCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQ 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
       Ohlsen, Kari L
Zyskind, Judit)
Wall, Daniel
Trawick, John I
Carr, Grant J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                         John D.
                                                                                                         Judith W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.5%; Score 222; DB 9 43.6%; Pred. No. 9e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 9; Length 296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52; Indels 22; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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US-09-815-242-10112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
US-10-124-557-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 14, Application US/10124557 Patent No. US20020137894A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 10112
LENGTH: 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/253,625
PRIOR TILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR FILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: 60/269,308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/191,078 PRIOR FILING DATE: 2000-03-21 PRIOR APPLICATION NUMBER: 60/206,848 PRIOR FILING DATE: 2000-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: XU, H. HOWARD
TITLE OF INVENTION: Identification of Essential Genes in
TITLE OF INVENTION: Prokaryotes
FILE REFERENCE: ELLTRA.011A
CURRENT APPLICATION NUMBER: US/09/815,242
CURRENT FILIG DATE: 2001-03-21
CURRENT FILIG DATE: 2001-03-21
CURRENT FILIG DATE: 2001-03-21
CURRENT FILIGE DATE: 2001-03-21
COURRENT FILICAL D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 2001-02-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/242,578 PRIOR FILING DATE: 2000-10-23
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PRIOR FILING DATE: 2000-05-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            747 APQQQYQQPQQPVPPQPQYQQPQQPVAPQPQQQYQQPQQPVAPQQQYQQPQQPV-APQQQY 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               689 QFAQTQQQRYSGEQPAGANPFSLDDFEFSPMKALLDDGPHEPLFTPIVEPVQQPQQ--PV 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109 PQQPQQPFPQQPQQI----IFQQPQQSYPV-QPQQPFP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50 LPEELFPQYQIPTPLQPQQPFPQQPQQPLPRPQQP-FPWQPQQPFPQPQEPIPQQPQQPF 108
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                               STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                             CITY: Cambridge
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Turner, Katherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jacobs, Kenneth
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Pred. No. 8.9e-09;
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Gaps

9.

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TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-124-557-14
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US-10-124-557-84
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REGERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-511
TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 14:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307 PAPTTTKEPSPTTPKEPAP 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION UMBER: US/10/124,557

FILING DATE: 16-Apr-2002
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PRIOR APPLICATION DATA:
                                FILING DATE: 16-Apr-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Turner, Katherine Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42;
                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Genetics Institute, Inc. STREET: 87 CambridgePark Drive CITY: Cambridge CITY: Cambridge STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 941 amino acids
TYPE: amino acid
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     APPLICATION NUMBER: US 07/643,502
                                                                                                                                                                                                                                                                         ZIP: 02140
                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jacobs, Kenneth
Hewick, Rodney M.
Gesner, Thomas G.
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30.2%; Pred. No. 6e-08;
79. Mismatches 59; Indels 10; Gaps
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TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 84:
US-10-124-557-84
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REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEPAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 84:
SEQUENCE CHARACTERISTICS:
LENGTH: 1022 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131 SYPVQPQQPFPQQP-QPVP 148
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            276 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 327
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FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
PRIOR APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Turner, Katherine
Clark, Stephen C.
                                                                                                                     APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                            CITY: Cambridge
STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME:
                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jacobs, Kenneth
Hewick, Rodney M.
Gesner, Thomas G.
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                                                                                                                                                                                                                                                                                                                                                                         U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genetics Institute, Inc
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Pred. No. 6.5e-08;
8; Mismatches 59; Indels 10; Gaps
                                                                                                                                                                                                                          Version #1.25
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TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 74:
US-10-124-557-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-124-557-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 58, Application US/10124557 Patent No. US20020137894A1 GENERAL INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEPA: (617)876-5851
INFORMATION FOR SEQ ID NO: 74:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         372 PAPTITKEPSPTTPKEPAP 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131 SYPVQPQQPFPQQP-QPVP 148
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                              APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: CUnknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 07/390,901 FILING DATE: 08-AUG-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Turner, Katherine
Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       42;
                    APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
                                                                   APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Cambridge
STATE: Massachusetts
  APPLICATION NUMBER: US 07/390,901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Genetics Institute, Inc
STREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/457,196 FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1038 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Cserr,
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Hewick, Rodney M.
Gesner, Thomas G.
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US-10-124-557-104
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TELEPHONE: (617)876-1170
TELEPAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 58:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       415 PAPTTTKEPSPTTPKEPAP 433
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12 QSPQQSYLQQPYPQNPYLPQKPFPYQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Turner, Katherine
Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protein
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ATTORNEY/AGENT INFORMATION:
NAME: CSerr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                      APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                    APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991 APPLICATION NUMBER: US 07/546,114 FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Massachusetts
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Cambridge
NAME: Cserr, Luann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 1049 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jacobs, Kenneth
Hewick, Rodney M.
Gesner, Thomas G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22.5%; Suc. No. u.. y 30.2%; Pred. No. u.. rive 28; Mismatches ...
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RESULT 9
US-10-124-557-44
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 42; Consert
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: protei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTMARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                               ATTORNEY/AGENT INFORMATION:
NAME: Cserr, Luann
                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 104:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
TELECOMMUNICATION INFORMATION:
                                                                                                   APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-UN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/10/124,557 FILING DATE: 16-Apr-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
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REFERENCE/DOCKET NUMBER: GI 5190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Cambridge
                                     NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Genetics institution of the street. 87 CambridgePark Drive
                  REFERENCE/DOCKET NUMBER: GI 5190
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Clark, Stephen C.
Jacobs, Kenneth
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Gesner, Thomas G.
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Pred. No. 7.2e-08;
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; SEQUENCE DESCRIPTION: SEQ ID NO: 44: US-10-124-557-44
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 42, Application US/10124557; Patent No. US20020137894A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local :
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      372 PAPTITKEPSPTTPKEPAP 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   131 SYPVQPQQPFPQQP-QPVP 148
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: CUNknown>
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                     REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
                                                                                                                                          ATTORNEY/AGENT INFORMATION: NAME: Cserr, Luann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Turner, Katherine Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42;
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TELEFAX: (617)876-5851
                                                                                                                                                                                  APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-UN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 87 CambridgePark Drive
CITY: Cambridge
STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 02140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Genetics Institute, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
                                                                                                                     NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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Hewick, Rodney M.
Gesner, Thomas G.
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Pred. No. 8e-08;
8; Mismatches 59; Indels 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels 10;
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; MOLECULE TYPE: protein ; SEQUENCE DESCRIPTION: SEQ ID NO: 42: US-10-124-557-42
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US-10-124-557-142
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                                                             INFORMATION FOR SEQ ID NO: 142:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPPQQPFPQQPIIFQQPQQ 130
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jacobs, Kenneth
Hewick, Rodney M.
Gesner, Thomas G.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSEFICATION: -Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 1311 amino acids
                                                                               TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                            SEQUENCE CHARACTERISTICS
                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Cserr, Luann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                               APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: Massachusetts
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 02140
                                                                                                                                                                    REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Genetics Institute, Inc.
                       LENGTH: 1313 amino acids
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Pred. No. 8.3e-08;
8; Mismatches 59;
                                                                                                                                                 GI 5190
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local 9
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                                                                                                                                                  INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 415 PAPTTTKEPSPTTPKEPAP 433
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  355 TIPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   303 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Turner, Katherine
Clark, Stephen C.
                   TOPOLOGY: linear MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
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SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                       TYPE: amino acid
                                                                                                                                                                                                                                                                       NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Genetics Institute, Inc STREET: 87 CambridgePark Drive
                                                                                              LENGTH: 1314 amino acids
                                                                                                                                                                        TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jacobs, Kenneth
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TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 46:
US-10-124-557-46
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US-10-124-557-46
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 46, Application US/10124557 Patent No. US20020137894A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
  Query Match
                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        416 PAPTTTKEPSPTTPKEPAP 434
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 304 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-UN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 07/390,901 FILING DATE: 08-AUG-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVERTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Turner, Katherine
Clark, Stephen C.
                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/124,557 FILING DATE: 16-Apr-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                     NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.25
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                                                                                                                                                      LENGTH: 1320 amino acids
                                                                                                                                                                                                                      TELEFAX: (617)876-5851
                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: GI 5190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                            (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22.5%; Score 204; DB 12; 30.2%; Pred. No. 8.3e-08; tive 28; Mismatches 59;
    22.5%;
  Score 204; DB 12;
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Length 1320;
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SEQUENCE DESCRIPTION: SEQ ID NO: US-10-124-557-60
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Matches 42; Conservative
  Best Local Similarity
Matches 42; Conserv
                                      Query Match
                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 60:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA: •
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                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: protei
                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143\,
                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 1320 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/643,502
FILLING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILLING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILLING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILLING DATE: 08-AUG-1989
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STREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                    TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                  NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 16-Apr-2002
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  Conservative
                                                                                                                                                                    amino acid
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22.5%; Score 204; DB 12; 30.2%; Pred. No. 8.3e-08; tive 28; Mismatches 59;
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Thomas G.
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8; Mismatches 59;
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; SEQUENCE DESCRIPTION: SEQ ID NO: 48:
US-10-124-557-48
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US-10-124-557-48
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                                                                                               Query Match
Best Local Similarity
Matches 42; Conserv
                                                                                                                                                                                                                                                                                                                                    TELEFAX: (617)876-58
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
344 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 422 PAPTTTKEPSPTTPKEPAP 440
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                                              12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
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                                                                                                                                                                                                                                                                                                                                                                                                       NAME: CSeTI, Luann
REGISTRATION NUMBER: 31,822
REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/390,901 FILING DATE: 08-AUG-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-UW-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Gesner, Thomas G.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                              TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Cambridge
STATE: Massachusetts
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                                                                                                                                                                                                                                                                                                             LENGTH: 1354 amino acids
                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                  E: (617)876-1170
(617)876-5851
                                                                                            22.5%; Score 204; DB 12; Length 1354; 30.2%; Pred. No. 8.5e-08; tive 28; Mismatches 59; Indels 10
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Qy 131 SYPVQPQQPFPQQP-QPVP 148

Db 456 PAPTTKEPSPTTPKEPAP 474

Search completed: May 27, 2003, 14:48:34 Job time: 27 secs

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"Nucleotide sequence of a gamma gliadin gene: comparisons with other gamma gliadin sequences show the structure of gamma gliadin genes and the general primary structure of gamma gliadins.";

Plant Sci. 57:141-150(1988).

-!- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
-!- FUNCTION: GLIADIN THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
-!- FUNCTION: GLIADIN STHE GAMMA-GLIADINS CAN BE DIVIDED INTO 3 HOMOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE TO SINGLE-BASE SUBSTITUTIONS & TO DUPLICATIONS OR DELETIONS WITHIN OR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Triticum aestivum (Wheat).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Eukaryota; Varidiplantae; Liliopsida; Poales; Poaceae; Pooidea
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Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; JA0153; JA0153.
InterPro; IPR003612; AAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=cv. Yamhill;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111
                                                             113 QQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                             22
                                                                                                                                                                                                                                                                                                                                           3 QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHT---PQQYFPYLPEELFPQYQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEAR DIRECT REPEATS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QPQQPFPQLQQPQQ-PFPQPQQQLPQPQQSFPQQQRPFIQPSLQQQLNPCKNILLQQ 193
QQPFPQPQQQ--FPQPQ-----QPQQSFPQQQQPAIQ 161
                                                                                                                                   QTYPHQPQQQFPQTQQPQQPFPQPQQTFPQQPQLPFPQQPQQPFPQPQQPPQQPFPQSQQP 131
                                                                                                                                                                                                                                                                          QVDP-SGQVQWPQ----QQPFPQ----PQQPF-CQQPQRTIPQPHQTFHHQPQQTFPQPQ 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SKPASLVSSLWSII 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QPQQPFP--QQPQQIIFQQPQQS--YPVQPQQPFPQQPQPVPQQA----
                                                                                                                                                                                                 IPTPLQPQQPFP--QQPQQPLPRPQQPFPWQPQQPFP--QPQEPI--PQQPQQPFP--QQP 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----SCIWSMV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    M36999; AAA34272.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       302 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Rel. 18, Last sequence update) (Rel. 18, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34300 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                              42.4%; Score 384.5; DB 1 58.0%; Pred. No. 2.8e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAMMA-GLIADIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inhbtr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       672437C770D6E782 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 302;
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GDBB_WHEAT
ID GDBB_W
AC P06659
DT 01-JAN
DT 01-NOV
DE Gamma--

GDBB_WHEAT

STANDARD;

PRT;

291 ΑA

P06659; 01-JAN-1988 (Rel. 06, Created) 01-JAN-1988 (Rel. 06, Last sequence update) 01-NOV-1990 (Rel. 16, Last annotation update)

Gamma-gliadin B precursor

RESULT

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                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gamma-gliadin precursor (Fragment).
Triticum aestivum (Wheat).
Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GDBO_WHEAT STANDARD: PRT; 251 AA. P08079; P08079; O1-AUG-1988 (Rel. 08, Created) O1-AUG-1988 (Rel. 08, Last sequence update) O1-NOV-1990 (Rel. 16, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCHOUENCE FROM N.A.

Scheets K., Rafalski J.A., Hedgcoth C., Soell D.G.;

"Heptapeptide repeat structure of a wheat gamma-gliadin.";

Plant Sci. Lett. 37:221-225(1985).

-!- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; PS0094; PS0094.
Interpro; IPR001768; Try/amyl_inhbtr.
Pfam; PF00234; tryp_alpha_amyl; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 FUNCTION: GLIADIN 15 THE MANON PROPERTY OF THE CLASSES INTO 3 HOMOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE TO SINGLE-BASE SUBSTITUTIONS & TO DUPLICATIONS OR DELETIONS WITHIN NEAR DIRECT REPEATS.
                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M16060; AAA34288.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                 NON_TER
                                     151
                                                                      107
167 VSLVSSLWSMI 177
                                                                                                           121
                                                                                                                                              54
                                                                                                                                                                              63 PLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFP--QQP 120
                                                                                                                                                                                                                     22
                                                                                                                                                                                                                   QVDPSSQ-VQWPQ----QQPVPQ----PHQPFSQQ-----PQQTFP-------
                                                                                                                                                                                                                                                    QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPT 62
                                                                                                                                                                                                                                                                                                                                                                                                                                      storage protein;
                                     ---ASCIWSMV 158
                                                                    QQLFPQSQQPQQQFSQPQQQFPQPQQPQQSFPQQQPPFTQPSLQQQVNPCKNFLLQQCKP 166
                                                                                                       QQII------FQQPQQSY--PVQPQQPFPQQP----QPVPQQ------- 150
                                                                                                                                            --QPQQTFPHQPQQQFPQPQ---
                                                                                                                                                                                                                                                                                           86;
                                                                                                                                                                                                                                                                                         Similarity 45.0
86; Conservative
                                                                                                                                                                                                                                                                                                                                                                251
251 AA;
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251
                                                                                                                                                                                                                                                                                                                                                                   29054 MW;
                                                                                                                                                                                                                                                                                                             38.3%;
45.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                           11;
                                                                                                                                                                                                                                                                                                           Score 347; DB 1;
Pred. No. 8.7e-18;
                                                                                                                                                                                                                                                                                                                                                                                                     GAMMA-GLIADIN
                                                                                                                                            -QPQQQFLQPQQPFPQQPQQPYPQQPPQQPFPQTQQP 106
                                                                                                                                                                                                                                                                                                                                                                 5A3F12C36C825EAD CRC64;
                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                           24;
                                                                                                                                                                                                                                                                                                                            Length 251;
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                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                         70; Gaps
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Best Local
                                                                                                                                                                                01-JAN-1988 (Rel. 06, Created)
01-JAN-1988 (Rel. 06, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
C-hordein (PCP387) (Fragment).
Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poocidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified and this statement is not removed. Usage horse agreement or restrictions as linear agreement of the sending as its content is in the sending as its content 
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Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;

Triticeae; Triticum.
Forde B.G., Kreis M., Williamson M.S., Fry R.P., Shewry P.R., Bunce N., Miflin B.J.; "Short tandem repeats shared by B- and C-hordein
                                                                                                                                                                                                                                                                                                                                                                                              HOR7_HORVU
P06472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00234; tryp_alpha_amy PRINTS; PR00208; GLIADGLUTEN. SMART; SM00499; AAI; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
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-!- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=4565;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seed storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR003612; AAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; M13713; AAA34274.1; -.
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                                                                                         SEQUENCE FROM N.A.
                                                                                                                                            NCBI_TaxID=4513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147 -VPQQ 150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NEAR DIRECT REPEATS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SFPQQ 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QVQWPQQQPFLQPHQPFSQQPQQIFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QKPFFVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQQPQQPLPRPQQPFPWQPQ 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A25632; EEWTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQFLQPRQPFPQQPQQPYPQQPPQQPFPQT-----QQPQQPFPQSKQPQQPFPQPQQPQQ 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYP--VQPQQPFPQQPQP-- 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69;
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55.2%;
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Pred. No. 1.1e-16;
Pred. No. 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAMMA-GLIADIN B. 857322C22A2EF041 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                            105 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 291;
                                                           Pywell J.
                                                                                                                                                                                                     Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24;
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CCCCCCCCCCCCTTAXCXXXX
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01-NOV-1990 (Rel. 16, Last sequence update)
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use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                        "A gamma-hordein gene.";
plant Mol. Biol. 11:449-461(1988).
-!- SUBCELLULAR LOCATION: CYTOPLASMIC (AS GLOBULES) AND VACUOLAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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InterPro; IPR001768; TryYamyl_inhbtr.
Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
                                                   the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Triticum.
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01-NOV-1990 (Rel. 16, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
01-NOV-1990 (Rel. 16, Last annotation update)
Alpha/beta-gliadin MM1 precursor (Prolamin).
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EMBL; X17361; CAA35238.1; -.
                           or send an email to license@isb-sib.ch)
                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/
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There are no restrictions on
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InterPro; IPR003612; Glia_glutenin.
InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001954; Try/amyl_inhbtr.
InterPro; IPR00234; try_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
SMART; SM00499; AAI; 1.
Seed storage protein; Repeat; Signal; Multigene family.
                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                     Rasmussen S.K., Brandt A.;
"Nucleotide sequences of toNA clones for C-hordein polypeptides.";
Carlsberg Res, Commun. 51:371-379(1986).
-!- FUNCTION: SULFUR-POOR SEED STORAGE PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                         Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
C-hordein (Clone PC HOR1-3) (Fragment).
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P17991;
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                             Seed storage protein; Multigene family.
                                                  EMBL; M35610; AAA32943.1; -. PIR; A25677; A25677.
                                                                                                                                  use by non-profit institutions as long modified and this statement is not removed
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                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                           TISSUE=Endosperm.
                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=4513;
                                                                                                                                                                                                                                          -!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 PQ-----QPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            111 QPQQPFPQQPQQII----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     259 PQAQGSVQPQQLPQ 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84 PQLPYP-QPQLPYP-QPQLPYPQPQ---PFRPQQPYPQSQPQYSQPQQPISQQQQQQQQQQ 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 QLNPCSQELQSPQQS---YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QIPEQSRCQAIHNVVHAIILHQQQQQQQQQQQQPLSQVSFQQPQQQYPSGQGSFQPSQQN 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----FQPQQSYP-----VQPQQPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQQKQQQQQQQILQQILQQQLIPCRDVVLQQHSIAYGSSQVLQQSTYQLVQQLCCQQLW 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YQIPTPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFP-----QPQEPIPQQPQQPFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLQPQNPSQQQPQEQVPLVQQQQFPGQQQPFPPQQPVPQPQPFPSQQ---PYLQLQPFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307 AA;
                                                                                                                                                                                                                                                                                                                                                                                                Hordeum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32.0%;
31.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35397 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALPHA/BETA-GLIADIN MM1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 9.2e-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 289.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06C1858BD96F1E08 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 AA
                                                                                                                                                There are no restrictions on ong as its content is in no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40;
                                                                                                                                     Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels 115;
                                                                                                                                       y
                                                                                                                                       and
                                                                                                                                       for
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                                                                                                                                         commercia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
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NON_TER SEQUENCE

72 AA;

8590 MW;

79A1B21C6D013B8C CRC64;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L_HORVU
HOR1_HORVU
P06470;
                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                              "Separation and characterization of basic barley seed proteins.";
Electrophoresis 21:3693-3700(2000).
-!- FUNCTION: SULFUR-RICH SEED STORAGE PROTEIN.
-!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JAN-1988 (Rel. 06, Created)
01-JAN-1988 (Rel. 06, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
                                                                                                                           SEQUENCE
                                                                                                                                                          SIGNAL
                                                                                                                                                                     PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
Seed storage protein; Signal; Multigene family.
                                                                                                                                                                                                                                     PIR; S07365; S07365.
InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
                                                                                                                                                                                                                                                                                                 EMBL; X03103; CAA26889.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=cv. Bomi; TISSUE=Starchy endosperm;
MEDLINE=21088911; PubMed=11271488;
Kristoffersen H.E., Flengsrud R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Nucleic Acids Res. 13:7327-7339(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE~86041918; PubMed=4059057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=4513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B1-hordein precursor
                                                                                                                                                                                                      Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 272-283 AND 286-292.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138 OPFPOOPOPVPOOASCIWSMV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79 PRPQQPFPWQPQQPFP-QPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYPVQPQ 137
21 QQPFPQQP-IPQQP----QPY--PQQPQPY-PQQPFP------PQQPFPQQPVPQQP 63
                              20 QQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQ--PQQP 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 PQPQEPFPQQPPQQPFPLQPQQPFPQQPFP-QPQQPFRQQAELIIPQQPQQPFPLQPH 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QPYTQQ-----TIWSMV 72
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ω
                                                                           Similarity
                                                                                                                          293 AA;
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                                                               Conservative
                                                                                                                                           20
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                                                                                                                           293 J
33423 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30.1%;
                                                                             30.0%; Score 271.5; DB 1; 45.3%; Pred. No. 1.5e~12;
                                                               13; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 272.5; DB 1
Pred. No. 3.6e-13;
                                                                           Pred.
                                                                                                                           B1-HORDEIN.
; 217D1971CE9C945A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      293 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1; Length 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels 11;
                                                                                           Length 293;
                                                               Indels
                                                             55;
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                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 77; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOG3_HORVU
P80198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plant J. 4:841-853(1993).

-t- FUNCTION: HAS A ROLE IN THE TRANSPORT AND TARGETING OF PROLAMINS TO THE VACUOLE OF DEVELOPING BARLEY ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 1-11, AND SEQUENCE OF 4-289 FROM N.A. STRAIN-CY. HORZCA: TISSUE-Endosperm; MEDLINE-94100996; PubMed-7-506098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gamma-hordein
                                                                                                                                                                                                                                                                                                                                                                                                                           SMART; SM00499; AAI; 1.
Seed storage protein; Multigene family
SEQUENCE 289 AA; 33189 MW; 322CB6D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia glutenin.
InterPro; IPR001768; Try/amyl_inhbi
Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        woullied and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce.or cord in the license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
-!- DOMAIN: SULFUR RICH HORDEIN WHICH POSSES AN N-TERMINAL HALF
COMPOSED OF PROLINE-GLUTAMINE BLOCKS ORGANIZED IN REPEATING UNITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     endosperm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rechinger K.B., Simpson D.J., Svendsen I., Cameron-Mills V., "A role for gamma 3 hordein in the transport and targeting of prolamin polypeptides to the vacuole of developing barley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; X72628; CAA51204.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBCELLULAR LOCATION: CYTOPLASMIC (AS GLOBULES) AND VACUOLAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=4513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126 Q-----QPQQSYP-----VQPQQPFPQQ---PQPVP------QQASC 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             122 QTLLQLQIQYVHPSILQQLNPCKVFLQQQCSPVPVPQRIARSQMLQQSSC 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78 LPRPQQPFPWOPQQPFPQ-----PQEPIPQQP----QQPFPQQPQPFPQQ----PQQIIF 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 QPYPQQPFP---PQQPFPQQPPFWQQKPFPQQPPFGLQQPILSQQQPCTPQQTPLPQGQLY 121
   48
                                                                  62 TPLQPQQPFPQQPQPLPRPQQPFPWQ-PQQPFPQPQEPIPQQPQQPFPQ----QPQQPF 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: TO GAMMA-GLIADIN FROM WHEAT, AND A GAMMA-SECALIN FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RYE, AND LESS TO A B1 HORDEIN FROM BARLEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONSERVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AND A C-TERMINAL HALF WHERE THE REPEATS ARE DISPERSED AND LESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (AS PROTEIN BODIES)
-PLPQQQPFPQQPQLP---HQHQFPQQLPQQQFPQ---QMPLQPQQQFPQQMPLQPQQQ- 99
                                                                                                                                           QFNPSGLELERPQQLFPQWQPLPQQP-----PFLQQE------PEQPYPQQQ-- 47
                                                                                                                                                                                                          QLNPCSQELQSPQQSYLQ-QPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hordeum.
                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                      29.5%;
                                                                                                                                                                                                                                                                                       9.
                                                                                                                                                                                                                                                                                                                          Pred. No.
                                                                                                                                                                                                                                                                                                                                                     Score 267.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _inhbtr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                   322CB6D7D6F55658 CRC64;
                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      289 'AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          update)
                                                                                                                                                                                                                                                                                   2.8e-12;
.ches 35;
                                                                                                                                                                                                                                                                                                                                                     DB 1; Length 289;
                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                       37;
                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                       12;
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QY

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Matches
                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE=85234522; PubMed=2989281; Okita T.W., Cheesbrough V., Reeve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GDA4_WHEAT STANDARD; PRT; 297 AA P04724; PAUG-1987 (Rel. 05, Created) 13-AUG-1987 (Rel. 05, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Seed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00208; GLIADO SMART; SM00499; AAI; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIR; D23364; D22364.
InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M11075; AAA34282.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gliadin DNA sequences.";
J. Biol. Chem. 260:8203-8213(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alpha/beta-gliadin A-IV precursor (Prolamin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Evolution and heterogeneity of the alpha-/beta-type and gamma-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=4565;
                          198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     117 PQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCI 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                          84
                                                                                                                                                                                                                                58
                                                                                                                                                                                                                                                                         27
                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                             3 QLNPCSQELQSPQQS---YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MISCELLANEOUS: THE ALPHA/BETA-GLIADINS CAN BE DIVIDED INTO 5 HOMOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE TO SINGLE BASE SUBSTITUTIONS AND TO DUPLICATIONS OR DELETIONS WITHIN OR NEAR DIRECT REPEATS. THERE ARE MORE THAN A 100 COPIES OF THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT
                    NVVHAIILHQQQQQQQQQQQQQQQPLSQVCFQQSQQQYPSGQGSFQPSQQNPQAQGSVQP 257
                                                                                                     ILQQILQQQLIPCRDVVLQQHSIAHGSSQVLQQSTYQLVQQFCCQQLWQIPEQSRCQAIH 197
                                                                                                                                                                                      PQLPYP-QPQLPYP----QPQPFRPQQSYP-QPQPQYSQPQQPISQQQQQQQQQQQQQQQQQQQQQQ
                                                                                                                                                                                                                            YQIPTPLQPQQPFPQQPQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQ------
                                                                                                                                                                                                                                                                    QLQPQNPSQQQPQKQVPLVQQQQFPGQQQPFPPQQPYPQQQPFPSQQ----PYMQLQPFPQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PQFPQQKPFGQYQQ--PL-TQQPYPQQ-QPLAQQQPSI 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PF00234; tryp_alpha_amyl; 1.
S; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                       1 Similarity
79; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                        297 AA;
                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                              -----QQPQQPFPQQP-QQIIFQQPQQSYP-----VQPQQPFPQ-----QP 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                                                                                                                                                                                                                                                                                                                                                          34239 MW;
                                                                                                                                                                                                                                                                                                                                                                         29.1%; Score 263.5; 32.2%; Pred. No. 5.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                          16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Reeves C.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALPHA/BETA-GLIADIN A-IV
                                                                                                                                                                                                                                                                                                                                                                                                                                          0025ED289AE9588B CRC64;
                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  update)
                                                                                                                                                                                                                                                                                                                                                                            5.4e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AΑ
                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
                                                                                                                                                                                                                                                                                                                                                       43;
                                                                                                                                               .----PFP-----
                                                                                                                                                                                                                                                                                                                                                                                              Length 297;
                                                                                                                                                                                                                                                                                                                                                       Indels 107;
                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                       12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        QУ
                                                                                                                                                                                      B
                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                    Дb
                    GDA2_WHEAT
                                            RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
GDA6_WHEAT
                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation on its the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
GDA2_WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART; SM00499; AAI; 1.
Smart; Smootein; Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X02538; CAA26383.1; -. EMBL; K03074; AAA34277.1; -. PIR; S07361; S07361.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Triticum aestivum (Wheat).
Eukaryota; Viridiplantae: Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Alpha/beta-gliadin clone PWI215 precursor (Prolamin).
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00234; tryp_alpha_amyl; 1. PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GDA6_WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=85242077; PubMed=3839304;
                                                                                                     132
                                                                                                                                             136 PQQPFPQQPQPVPQQ 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR003612; AAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       145 QPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               258 QQLPQ 262
                                                                                                                                                                                                                              77
                                                                                                                                                                                                                                                                      27
                                                                                                                                                                                                                                                                                                          21 QPYPQNPYLPQK----PFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQPQQ 76
                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME
                                                                                                  QQQQQQQQQQQILQQ 146
                                                                                                                                                                                      PFPQP-QPFP--PQLPYPQPP---PFSPQQPYPQPQPQYPQPPOP--ISQQQAQQQQQQQ
                                                                                                                                                                                                                       PLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQ-QPQQPFPQQPQQIIFQQPQQSYPVQ 135
                                                                                                                                                                                                                                                                  QPQPQNPSQPQGQVPLVQQQQFPGQQQQFP--PQQPYPQ---PQPFPSQQPYLQ--LQ
                                                                                                                                                                                                                                                                                                                                                       67;
                                                                                                                                                                                                                                                                                                                                                                                                                                      296 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Triticum.
                                                                                                                                                                                                                                                                                                                                                     Conservative
  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                         28.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                    33941 MW;
                                                                                                                                                                                                                                                                                                                                                     8;
                                                                                                                                                                                                                                                                                                                                                            Score 255; Db 1,
No. 2.1e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                    ALPHA/BETA-GLIADIN CLONE PW1215; A9BDF590AD40F135 CRC64;
  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                     Mismatches
  291 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              296 AA.
                                                                                                                                                                                                                                                                                                                                                     40;
                                                                                                                                                                                                                                                                                                                                                                                         Length 296;
                                                                                                                                                                                                                                                                                                                                                     Indels 20;
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QΥ Дb Qy DЬ Qγ В δδ

Gaps

9;

79

131

Дb

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RESULT 14
GDA3_WHEAT
ID GDA3_W
AC P04723
DT 13-AUG
DT 13-JUL
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Best Local :
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J. Biol. Chem. 260:8203-8213(1985).

J. Biol. Chem. 260:8203-8213(1985).

I. HOLLANEOUS: THE MAJOR SEED STORAGE PROTEIN IN WHEAT.

I. HONGLOCY CLASSES. SEQUENCE DIVERGENCE BITWEEN THE CLASSES IS DUE
HONGLOCY CLASSES. SEQUENCE DIVERGENCE BATWEEN THE CLASSES IS DUE
TO SINGLE BASE SUBSTITUTIONS AND TO DUPLICATIONS OR DELECTIONS
WITHIN OR NEAR DIRECT REPEATS. THERE ARE MORE THAN A 100 COPIES OF
THE GENE FOR ALPHA/BETA-CLIADIN PER HAPLOID GENOME.
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13-AUG-1987 (Rel. 05, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Alpha/beta-gliadin A-II precursor (Prolamin).
Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Okita T.W., Cheesbrough V., Reeves C.D.;
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GDA3_WHEAT STANDARD; PRT; 282 AA. P04723; P04723; P13-AUG-1987 (Rel. 05, Created) PAGG-1987 (Rel. 05, Last sequence update) Last annotation update)
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InterPro; PR001768; Try/amyl inhbtr.
Pfam; Pr00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seed storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M10092; AAA34276.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                             201 QHHHHQQQQQQQQQQPLSQVSFQQPQQQYPSGQGFFQPSQQNPQAQGSFQPQQLPQ 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108 --- FPQQPQQPFPQQP-QQIIFQQPQQSYP-----VQPQQPFPQ------QPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141 IPCRDVVLQQHNIAHGSSQVLQESTYQLVQQLCCQQLWQIPEQSRCQAIHNVVHAIILHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 ELQSPQQSYLQQPYP-----QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29 QLQNPSQQQPQEQVPLVQEQQPQQQQQPFPPQQPYPQPQPFPSQQ---PYLQLQPFPQPQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LPYP----QPQPFRPQQPYPQPQYS-QPQQPISQQQQQQQQQQQQQQQQQQILQQILQQQL 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IPTPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQP------ 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IPR003612;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 250; DB 1; Length 291; Pred. No. 4.5e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALPHA/BETA-GLIADIN A-II.
'; 9B39F93B0B25A2E0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 45; Indels 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                    RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Okita {
m T.W.}, Cheesbrough V., Reeves C.D.; "Evolution and heterogeneity of the alpha-/beta-type and gamma-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE~85234522; PubMed=2989281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Triticum aestivum (Wheat).
Eukaryota; Viridiplantae: Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Triticum.
                                               Hordeum vulgare (Barley).
Eukaryota: Viridiplantae: Streptophyta: Embryophyta: Tracheophyta:
Spermatophyta: Magnoliophyta: Liliopsida: Poales; Poaceae: Pooidea
Triticeae: Hordeum.
                                                                                                                               HOR3_HORVU STANDARD; PRT; 264 AA. P06471; P06471; O1-JAN-1988 (Rel. 06, Created) O1-JAN-1988 (Rel. 06, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00234; tryp_alpha_amyl; 1. PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EmBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content is in no way.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alpha/beta-gliadin A-III precursor (Prolamin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00499; AAI; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00208;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR003612; InterPro; IPR001954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; E22364; E22364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; M11076; AAA34283.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
SEQUENCE FROM N.A
                            NCBI_TaxID=4513;
                                                                                                                B3-hordein (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seed storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro;
                                                                                                                                                                                                                                                                                         130
                                                                                                                                                                                                                                                                                                                      117 POQPQQ-----IIFQQP------QQSYPVQPQQPFPQQPQPVPQQASC 153
                                                                                                                                                                                                                                                                                                                                                                                        57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                        78 Q---PQPFPPQLPYPQ--TQPFP-PQQPYP-QPQPQYPQPPQQPISQQQAQQ-QQQQQQTL 129
                                                                                                                                                                                                                                                                                                                                                                                                                         27
                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 QLNPCSQELQSPQQS----YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFP 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME.
                                                                                                                                                                                                                                                                                                                                                                                                                         QLQPQNPSQQQPQEQVPLMQQQQQFPGQQEQFPPQQPYPHQQPEPSQQPY-----P
                                                                                                                                                                                                                                                                                     QQILQQQLIPCRDVVLQQHNIAHASSQVLQQSSYQQLQQLCCQQLFQIPEQSRC
                                                                                                                                                                                                                                                                                                                                                                                          QYQIPTPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPF 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
282 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IPR001768; Try/amyl_inhbtr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282
32236 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAI.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 242; µb 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALPHA/BETA-GLIADIN A-III.

; 87277047784E870A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a collaboration
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Best Local Similarity
Matches 55; Conserv
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; M01777; CAA25912.1; --
EMBL; M23869; AAA32597.1; --
InterPro; IPR003612; AAI
InterPro; IPR001768; Try/amyl_inhbtr.
Pfam; PP00234; tryp_alpha_amyl; 1.
SMART; SM00499; AAI; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAINE-2V. Bomi; TISSUE-Starchy endosperm;
MEDLINE-2108931; PubMed=11271488;
Kristoffersen H.E., Flengsrud R.;
"Separation and characterization of basic barley seed proteins.";
Electrophoresis 21:3693-3700(2000).
-!- FUNCTION: SULFUR-RICH SEED STORAGE PROTEIN.
-!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Forde B.G., Kreis M., Williamson M.S., Fry R.P., Pywell J., Shewry P.R., Bunce N., Millin B.J.; "Short tandem repeats shared by B- and C-hordein cDNAs suggest a common evolutionary origin for two groups of cereal storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 211-264 FROM N.A. Ranmussen S.K., Hopp H.E., Brandt A.; Rasmussen S.K., Hopp H.E., Brandt A.; "Nucleotide sequences of cDNA clones for B1 hordein polypeptides."; Carlsberg Res. Commun. 48:187-199(1983).
                                                                                                                                                                                                                                                                                                                                                                                 Seed storage protein; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 136-146.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBO J. 4:9-15(1985).
                                                                                                                               126 QQPQQSYPVQPQQPFPQQP----QPV-PQQASC 153
                                                                                                                                                                                                                67 QQPFPQQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIF 125
                                                                                        54 ----FP--SQQPFPQQPPFWQQQPVLSQQQPC 79
                                                                                                                                                                      1 QQPVSRQPQQIIPQQPQQPFPLQPQQPQPFPQQPIPQQP-QPYPQQPQS-FPQQP----- 53
                                                                                                                                                                                                                                                                                                                                               264 AA; 30196 MW;
                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                          26.5%; Score 240; DB 1
58.5%; Pred. No. 2e-10;
                                                                                                                                                                                                                                                              6; Mismatches
                                                                                                                                                                                                                                                                                                                                               0D4FB2E74D22E9BE CRC64;
                                                                                                                                                                                                                                                                                                   DB 1; Length 264;
                                                                                                                                                                                                                                                              11;
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
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        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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gamma-hordein 3 -
alpha/beta-gliadin
alpha/beta-gliadin
gliadin - wheat
alpha/beta-gliadin
cell division prot
glutenin low molec
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B3-hordein (clone
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alpha/beta-gliadin

RESULT 2 T06211 C. hordein precursor - barley C. Species: Hordeum vulgare (barley) C. Species: Hordeum vulgare (barley) C. Species: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_ C. Accession: T06211: A03355 R. Sainova, O. V.; Mekhedov, S. L.; Zhelnin, L.G.; Khokhlova Genetika 29, 1070-1079, 1993 A. Title: Nucleotide sequence of the barley C-hordein gene A. Reference number: 215337; MUID:93380629; PMID:8396543 A.; Accession: T06211 A.; Scatus: preliminary; translated from GB/EMBL/DDBJ A.; Molecule type: DNA A.; Residues: 1-310 <sai> A.; Cross-references: EMBL:S66938; NID:9442523: PIDN:AAB281 R.; Shewry, P.R.; Autran, J.C.; Nimmo, C.C.; Lew, E.J.L.; K Nature 286, 520-522, 1980 A.; Reference number: A93228</sai>	Query Match Query Match Query Match Query Match Best Local Similarity 98.7%; Pred. No. 7.7e-53; Matches 147; Conservative 0; Mismatches 1; Indels 1; G Qy 2 RQLNPCSQELQSPQQSYLQOPYPONPYLPQKPFPVQOPFHTPOQYFPYLPEELFPQYQIP	an-1995 #tex Cameron-Mill vo and in vi PMID:1932695	30 238 26.3 356 2 S01992 31 238 26.3 359 2 T06982 32 237 26.2 286 2 T06282 33 236.5 26.0 286 2 S07923 34 236.5 26.0 276 2 S57656 36 234 25.8 286 1 EEWTA 37 234 25.8 292 2 B22364 40 230.5 25.4 261 2 ES6614 40 230.5 25.4 261 2 S57655 41 1219 24.2 271 2 T04474 42 218.5 24.1 68 2 B25677 43 211.5 23.3 307 2 S04325 45 208.5 23.0 462 1 LUDO7
change ll-May-2000 'a, T.A.; Anan'ev, E.V. e. ie. kasarda, D.D.	Length 260: Indels 1; Gaps 1; FPYLPEELFPQYQIP 61	t_change 20-Aug-1999 s, V. tro analysis of two C-hordein	glutenin low molec glutenin low molec alpha-gliadin prec alpha/beta-gliadin platenin low molec alpha/beta-gliadin alpha/beta-gliadin alpha/beta-gliadin alpha/beta-gliadin alpha/beta-gliadin alpha/beta-gliadin cell division prot cell division prot glutenin low molec Bl hordein barle C-hordein (pc-919) cell division prot glutenin low molec Bl hordein - barle glutenin low molec Bl hordein (pc-919) cell division prot glutenin low molec annexin VII - slim

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RESULT 4
S18236
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C;Species: Hordeum vulgare (barley)
C;Date: 09-Apr-1999 #sequence_revision 09-Apr-1999 #text_change 20-Aug-1999
C;Accession: T05737
R;Entwistle, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Accession: A03355
A;Molecule type: protein
A;Residues: 21-48 <SHE>
A;Residues: 21-18 diadin
C;Superfamily: gliadin
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-310/Product: C-hordein #status experimental <MAT>
                                                                                                                                                                                                                                                                                                               DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross·references: EMBL:M36941; NID:g167062; PIDN:AAA92333.1; A;Experimental source: cv. Bomi, immature endosperm C;Superfamily: gliadin
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A;Molecule type: DNA
A;Residues: 1-347 <ENTS
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A;Title: Primary structure of a C-hordein gene from barley.
A;Reference number: Z15444; MUID:89351278; PMID:3255313
A;Accession: T05737
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                                                                                                               119 OPOQIIFQQPQQSYPVQPQQPFPQQP-QPVPQQASCIWS 156
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                                                                                                                                                                                               PQQPFP--
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                                                                                                                                                                                                                                                           PQYQIPTPLQPQQPF----PQQPQQPLPRPQQPFPWQPQQPFP-QPQEPIPQQPQQPFPQQ 111
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                                                                                                                                                                                                                                                                                                                 RQLNPSHQELQSPQQPFLKQQSYLQQPYPQQPYLPQQPFP-----
                                                                                                                                                                                                                                                                                                                                                     RQLNPCSQELQSP-----QQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELF 55
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58.6%;
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                                                                                                                                                                                                                                                                                                                                                                                             10; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                              Score 580; DB 2; Pred. No. 7.9e-35;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 347
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omega secalin precursor (clone pSec2B) - rye (Species: Secale cereale (rye) (C;Species: Secale cereale (rye) (C;Date: 16-Sep-1992 #sequence_revision 16-Sep-1992 #text_change 20-Aug-1999 (C;Accession: S18236; S1978 R;Hull, G.A.; Halford, N.G.; Kreis, M.; Shewry, P.R. Plant Mol. Biol. 17, 1111-1115, 1991 A;Title: Isolation and Characterisation of genes encoding rye prolamins contaction of genes encoding rye prolamins rye prola
                                                                            QΥ
                                                                                                                                                                      B
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                                                                                                                                                                                                                                                                                                                                        В
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F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-357/Product: omega secalin #status predicted <MATY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R:Hull, G.A.; Halford, N.G.; Kreis, M.; Shewry, P.R. Plant Mol. Biol. 17, 1111-1115, 1991
A;Title: Isolation and characterisation of genes enc A;Reference number: S18235; MUID:92032773; PMID:1932 A;Accession: S18235.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              omega secalin precursor (clone pSec1B) - rye
C;Species: Secale cereale (rye)
C;Date: 16-Sep-1992 #sequence_revision 16-Sep-1992 #text_change 20-Aug-1999
C;Accession: S18235; S19777
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A; Residues: 1-357 < HUL>
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A; Residues: 1-357 < HUL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: EMBL:X60294; NID:g21201; PIDN:CAA42836.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:X60295; NID:g21203; PIDN:CAA42837.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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135 QPQQIIPQQTQQPFPLQPQQPFPQQPQRPFAQQPEQIIS 173
                                                                                 119 QPQQIIFQQPQQSYPVQPQQPFPQQPQ-PVPQQASCIWS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            119 QPQQIIFQQPQQSYPVQPQQPFPQQPQ 145
                                                                                                                                                                                                                                                   62 TPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQP---FPQ 118
                                                                                                                                                                                                                                                                                                                                        20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62 TPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQP---FPQ 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
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                                                                                                                                                                                                                                                                                                                                                                                                                2 RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61
                                                                                                                                                                  TPIQPQQPFPQRPQQPFPQPQQLPLQPQQSFPQPQHPIPQQPQQSFPQQPQRPEQQFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RQLNPSEQELQSP-----QQPVPKEQSYPQQPYPSHQPFPTPQQYSPYQPQQPFPQPQQP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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67.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 562.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9;
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RESULT 6

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A; Residues: 1-302 <SCH>
A; Experimental source: seed
                                                                                                                                                                                                                                                                                                                                                             A;Title: Nucleotide sequence of a A;Reference number: JA0153 A;Accession: JA0153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gamma-gliadin precursor - wheat
N;Alternate names: seed storage protein
C;Species: Triticum aestivum (common wheat)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 15-Nov-1996
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C:Keywords: storage protein
F:1-19/Domain: signal sequence #status predicted <
F:20-327/Product: gamma-gliadin #status predicted
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Plant Sci. 44, 205-209, 1986
A;Title: The nucleotide sequence of a wheat gamma-gliadin genomic clone.
A;Reference number: JS0402
A;Accession: JS0402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gamma-gliadin precursor - wheat
C;Species: Triticum aestivum (common wheat)
C;Date: 07-Sep_1990 #sequence_revision 07-Sep_1990 #text_change 15-Nov-1996
C;Accession: JS0402
                                                                                                                                                                                                                                                                                                                                                                                                                     C;Accession: JA0153
R;Scheets, K.; Hedgcoth, C.
Plant Sci. 57, 141-150, 1988
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                                                                                                                                                                                                                  F;20-302/Product: gamma-gliadin #status predicted <GAG>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
                                                                                                                                                                                                                                                                     lity, molecular weight, and amino acid content.
                                                                                                                                                                                                                                   Superfamily: gliadin :-19/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                         Comment: Wheat storage proteins are classified as prolamins
                                                                                                                                              Matches
                                                                                                                                                                                    Query Match
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     72
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                                                                                                                                                                   Local
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QTYPHQPQQQFPQQQPFPQPQQTFPQQQPQLFFPQQQPQQFFPQPQQPFPQQQPFPQQQP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QPQQPFPQLQQPQQ-PFPQPQQQLPQQPQQSFPQQQRPFIQPSLQQQLNPCKNILLQQ 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTP--LQPQQPFPQQPCP---RPQQPFPWQPQQPFP---QPQEPIPQQPQQPFP--Q 110
                                                                       QVDP-SGQVQWPQ----QQPFPQ----PQQPF-CQQPQRTIPQPHQTFHHQPQQTFPQPQ 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PQQPFLQPQQPFPQQPQQPFPQTQQPQQPFPQQPQQPFPQTQQPQQPFPQQPQQPFPQTQ 132
                                                                                                                                                91;
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97; Conserv
                                                                                                                                                               Similarity
                                                                                                                                                Conservative
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58.0%;
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                                                                                                                                            Score 384.5; DB 2;
Pred. No. 6.3e-21;
L1; Mismatches 28;
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Pred. No. 7.4e-23;
                                                                                                                                                                                                                                                                                                                                                                                               gamma gliadin gene: comparisons
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                                                                                                                                                                                                                                                                                         (alpha-/beta-,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proteins
                                                                                                                                            27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48;
                                                                                                                                                                                                                                                                                                                                                                                               with other gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                            Gaps
                                                                                                         59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              151
                                                                                                                                            11;
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                                                                                                                                                                                                                                                                                       gamma-
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δÃ
                                                                                                                                                        C;Keywords: seed; storage protein F;1-19/Domain: signal sequence #status predicted <SIG>F;20-291/Product: gamma-gliadin B #status predicted <M
                                                                                                                                                                                                                                                                                                                            A;Title: Structure of wheat gamma-gliadin A;Reference number: A25632; MUID:86301876; A;Accession: A25632
                                                                                                                                                                                                                                                                                                                                                                                                                                            gamma-gliadin B precursor - wheat
C;Species: Triticum aestivum (common wheat)
C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DЬ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Superfamily: gliadin
C;Keywords: Storage protein
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-251/Product: gamma-gliadin (clone pW10) (fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Residues: 1-251 <SCH>
A;Cross-references: GB:M16060; NID:g170735; PIDN:AAA34288.1; PID:g170736 C;Comment: Gliadins are the major storage proteins of wheat grain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gamma-gliadin precursor (clone pW10) - wheat (fragment)
C:Species: Triticum aestivum (common wheat)
C:Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 20-Aug-1999
    B
                                                                                                                                                                                                                        C; Superfamily: gliadin
                                                                                                                                                                                                                                           A;Cross-references: GB:M13713; NID:g170707; C;Comment: Gliadin, a glutamine and proline
                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-291 < RAF>
                                                                                                                                                                                                                                                                                                                                                                                       Gene 43, 221-229, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Дb
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                                                                                                                                                                                                                                                                                                                                                                                                                             C; Accession: A25632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EEWTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-251 <SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: PS0094
A; Accession: PS0094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Title: Heptapeptide repeat structure of a wheat gamma-gliadin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Scheets, K.; R
Plant Sci. Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Accession: PS0094
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113 QQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   151 --- ASCIWSMV 158
  28
                                      31 QKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQPQQPLPRPQQPFPWQPQ 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54 -- QPQQTFPHQPQQQFPQPQ ---- QPQQQFLQPQQPFPQQPQQPYPQQPQQPFPQTQQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63 PLQPQQPFPQQPQOPLPRPQQPFPWQPPQQPFPQPQEPIPQQPQ0PFPQQPPQPPP---Q0P 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22 QVDPSSQ-VQWPQ----QQPVPQ-----PHQPFSQQ-----PQQTFP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPT 62
QVQWPQQQPFLQPHQPFSQQPQQIFP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VSLVSSLWSMI 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQLFPQSQQPQQQFSQPQQQFPQPQQPQQSFPQQQPPFIQPSLQQQVNPCKNFLLQQCKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQII-----FQQPQQSY--PVQPQQPFPQQP----QPVPQQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQPFPQPQQQ--FPQPQ----QPQQSFPQQQQPAIQ 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 K.; Rafalski,
                                                                                                                                                                                                                                                                                                                                                                                                            J.A
                                                                                  69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66;
                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
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                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38.3%;
45.0%;
                                                                                               36.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11; Mismatches
                                                                            9;
                                                                                                 Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 347; DB 2;
Pred. No. 2.5e-18;
                                                                                                                    Score
                                                                              Mismatches
                                                                                                                332;
                                                                                                   NO.
                                                                                                                                                                                                                                                                                                                                               genes.; PMID:3017812
                                                                                                                                                                                                                                           PIDN:AAA34274.1; PID:g170708 rich protein, is a major sto
-QPQQTFPHQPQQQFPQPQ-----QPQ 74
                                                                                                 3.4e-17;
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                                                                                                                      DB 1;
                                                                                                                                                               <MAT>
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                                                                                                                  Length 291;
                                                                              Indels
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                                                                              24;
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A;Cross-references: EMBL:X01779; NID:g18948; PIDN:CAA25914.1; C;Genetics: A;Gene: Horl A;Map position: 5 C;Superfamily: gliadin C;Keywords: seed; storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10 $907189

C-hordein (clone pcp387) - barley (fragment)

C:SpecLes: Hordeum vulgare (barley)

C:SpecLes: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 20-Aug-1999

C:Accession: S07189

C:Accession: S07189

M - Williamson. M S.: Frv, R.P.: Pywell, J.: Shewry, I
                                                                                                                                      A;Cross-references: EMBL:X13508; NID:g18979; PIDN:CAA31861.1; C;Superfamily: gliadin C;Keywords: seed; storage protein F;1-19/Domain: signal sequence #status predicted <SIG>F;20-305/Product: gamma-hordein 1 #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                          gamma-hordein 1 precursor - barley
C:Species: Hordeum vulgare (barley)
C:Date: 30-Jun-1992 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
S08312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Forde, B.G.; Kreis, M.; Williamson, M.S.; Fry, R.P.; Pywell, J.; Shewry, P.R.; EMBO J. 4, 9-15, 1985
A;Title: Short tandem repeats shared by B- and C-hordein cDNAs suggest a common e A; Reference number: S07189
A;Accession: S07189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
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Db
                             Qy
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A; Residues:
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                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-305 < CAM>
                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: S08312
                                                                                                                                                                                                                                                                                                                    R; Cameron-Mills, V.; Brandt, A. Plant Mol. Biol. 11, 449-461, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                         A; Title: A gamma-hordein
                                                                                                                                                                                                                                                                                                                                                             C; Accession:
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Best Local S
Matches 73
                                                                       Matches
                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74
                                                                                       Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N
                                 3 QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPT 62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQFLQPRQPFPQQPQQPYPQQPQQPFPQT-----QQPQQPFPQSKQPQQPFPQPQQPQQ 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LQPHQPYTQQ-----
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ilarity 50.3%;
Conservative
                                                                       Conservative
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                                                                                                                                                                                                                                                                                    ruein gene.
S08312
                                                                                      33.3%;
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                                                                     13;
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Pred. No. 4.5e-16;
8; Mismatches 23;
                                                                                      Pred.
                                                                                                        Score 302;
                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                              30-Jun-1992 #text_change 20-Aug-1999
                                                                                       No.
QQPFISQSQ-----QQFPQPQQPF
                                                                                                        DB 2;
                                                                       40;
                                                                                                        Length 305
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RESULT 12
S10015
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A48048
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A; Molecule type: DNA
A; Residues: 1-509 <LYO>
A; Cross-references: GB:
                                                                                                                                                                                                            egg envelope protein wf - winter flounder
N;Alternate names: zona pellucida protein homolog wf
C;Species: Pseudopleuronectes americanus (winter flounder)
C;Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                       Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:X17361; NID:g21672; PIDN:CAA35238.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-307 <GAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Title: Nucleotide sequence of a cDNA encoding an alpha/beta-type gliadin from hexap A;Reference number: S10015; MUID:91346679; PMID:2102865 A;Accession: S10015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Garcia-Maroto, F.; Marana, C.; Garcia-Olmedo, F.; Carbonero, Plant Mol. Biol. 14, 867-868, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                             A; Status: preliminary
                                                                                   A; Reference number: A48048; A; Accession: A48048
                                                                                                         A; Title: Expression and structural analysis of a teleost homolog A; Reference number: A48048; MUID:94012691; PMID:8407974
                                                                                                                                               R; Lyons, C.E.; Payette, K.L.;
J. Biol. Chem. 268, 21351-2135
                                                                                                                                                                                        C; Accession: A48048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;21-307/Product: alpha/beta-gliadin #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111 QPQQPFPQQPQQII----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 QLQPQNPSQQQPQEQVPLVQQQQFPGQQQPFPPQQPYPQPQPFPSQQ----PYLQLQPFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 QLNPCSQELQSPQQS---YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jocal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --- DOPPOOPED TIPOOPOOSYPVOPOOPEP---
                                                                                                                                                                                                                                                                                                                                                                                   POAQGSVQPQQLPQ
                                                                                                                                                                                                                                                                                                                                                                                                                             PQ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \tt QIPEQSRCQAIHNVVHAIILHQQQQQQQQQQQQQQPLSQVSFQQPQQQYPSGQGSFQPSQQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQQKQQQQQQILQQILQQCLIPCRDVVLQQHSIAYGSSQVLQQSTYQLVQQLCCQQLW 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PQLPYP-QPQLPYP-QPQLPYPQPQ----PFRPQQPYPQSQPQYSQPQQPISQQQQQQQQQQ 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YQIPTELQPQQPFPQQPLPRPQQPFPWQPQQPFP------QPQEPIPQQPQQPFPQ 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -SLLSYIWSKI 187
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PQQPQQPFPQSQQQCLQQPQHQFP-QPTQQFPQRPLLPFTHPFLTFPDQLLPQPPHQSFP 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81;
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                                                                                                                                                 21351-21358, 1993
    GB:U03674;
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31.9%; Pred. No. 3.9e-14;
                                                                                                                                                                       Price,
  NID:g425355; PIDN:AAC59642.1; PID:g425356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                     J.L.; Huang, R.C.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -FQQPQQSYP-----VQPQQPF 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PQEPIPQQPQQPFP 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -QQPQPV 147
                                                                                                                                                                                                                   21-Jul-2000
                                                                                                                                 of a mammalian zona
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hordein B1 - barley
C;Species: Hordeum vulgare (barley)
C;Species: Hordeum vulgare (barley)
C;Date: 02-Dec:1993 #sequence_revision 01-Dec-1995 #text_change 20-Aug-1999
C;Accession: S07365
R;Forde, B.G.; Heyworth, A.; Pywell, J.; Kreis, M.
Nucleic Acids Res. 13, 7327-7339, 1985
A;Title: Nucleotide sequence of a B1 hordein gene and the identification of possible ups A;Reference number: S07365; MUID:86041918; PMID:4059057
A;Accession: S07365
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A;Introns: 224/1; 285/3; 318/2; 372/1; 436/2; 485/2
C;Superfamily: trefoil homology: 2P domain homology
F;186-221/Domain: trefoil homology <TRF5>
F;227-505/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
A25677
C-hordein (pc hor1-3) - barley (fragment)
C:Species: Hordeum vulgare (barley)
C:Species: 05-Oct-1988 #sequence_revision 05-Oct-1988 #text_change 12-Apr-1995
C:Date: 05-Oct-1988 #sequence_revision 05-Oct-1988 #text_change 12-Apr-1995
C:Accession: A25677
R:Rasmussen, S.K.; Brandt, A.
Carlsberg Res. Commun. 51, 371-379, 1986
A;Title: Nucleotide sequences of cDNA clones for C-hordein polypeptides.
A;Title: Nucleotide sequences of cDNA clones for C-hordein polypeptides.
A;Reference number: A90768
A;Accession: A25677
R:Accession: A25677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
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S07365
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-72 < RAS>
C; Superfamily: gliadin
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                                                                            C;Superfamily: yllavin
C;Keywords: seed; storage protein
                                                                                                                                                                   A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-293 <FOR>
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                                                                                                                     A;Cross-references: EMBL:X03103; NID:g18909; PIDN:CAA26889.1; PID:g18910 C;Superfamily: gliadin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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     Matches
                         Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   138 QPFPQQPQPVPQQASCIWSMV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125 FOOPOOSYPVOPOOPFPOO-POPVPOOAS 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101 ΡΚΥΡΌΦΡΟΦ-ΟΦΡΟΦΡΚΥΡΌΦΡΟΦ--ΦΟΡΌΦΡΚΥΡΏΦΡΟΦ---- 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57 QRYVQQRRRLHHDFSPQN------PGAEPPQTPQQ--PTYPQQ--PQ----QPQQPQQ 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16 QSYLQQP-----YPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQ 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 QPYTQQ-----TIWSMV 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79 PRPQQPFPWQPQQPFP-QPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYPVQPQ 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
les 53; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 PQPQEPFPQQPQQPFPLQPQQPFPQQPQQPFP-QPQQPFRQQAELIIPQQPQQPFPLQPH 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-FPQQPQQPLPRPQQP-FPWQPQQPFPQPPGEP-IPQQPQQPFPQQPQQP-FPQQPQQII 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -QQPKNPQPKNPQPPQPQKNPQPTKQQVS 180
                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
  Conservative
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                         30.0%; Score 271.5; DB : 45.3%; Pred. No. 7.2e-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11; Mismatches
     13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 272.5; DB 2;
Pred. No. 1.6e-13;
7; Mismatches 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 279.5; DB 2; Pred. No. 3.3e-13;
     Mismatches
                                                   DB 2;
     25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 72;
                                                Length 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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Search completed: May 27, 2003, 14:47:46
Job time: 53 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM protein -
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                     SPTREMBL_21:*

Sp_archea:*

Sp_bacteria

Sp_bacteria

Sp_bacteria

Sp_bacteria

Sp_human:*

Sp_human:*

Sp_human:*

Sp_mamma'

Sp_ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
               580
574
562.5
562.5
447
440
412
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410
412
410
383.5
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752
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Match Length
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906
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Gapop 10.0 , Gapext 0.5
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               91.7
83.0
652.7
448.6
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sp_rvirus:*
sp_bacteriap:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=93380629;
Sainova O.V., Mekl
Anan'ev E.V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Stre
Spermatophyta; Magnoliophyta;
Triticeae; Hordeum.
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                                                                                                                                    01-NOV-1996 (TrEMBLrel.
01-NOV-1996 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
C hordein precursor.
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EMBL; S66938; AAB28161.1; -.
SEQUENCE 310 AA; 36508 MW; 7A9621869D50D67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C-hordein.
                   Spermatophyta; Magnoliophyta; Triticeae; Hordeum. NCBI_TaxID=4513;
                                                                                         Hordeum vulgare (Barley).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                  Q40055;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP
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hedov S.L., Zhelnin L.G.,
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yta; Liliopsida; Poales; Poaceae; Pooidea
                                                                     Streptophyta; Er
/ta; Liliopsida;
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3.1e-62;
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Best Local
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O9FUW7;
O1-MAR-2001 (TrEMBLrel. 16, Created)
O1-MAR-2001 (TrEMBLrel. 16, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Omega gliadin storage protein.
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STRAIN-BOMI; TISSUE-IMMATURE ENDOSPERM;
MEDLINE-89351278; PubMed-3255313;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Entwistle
                                                                                                                                                                                                                                      "Isolation and characterization of wheat omega gliadin submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases EMBL; AF280605; AAG17702.1;
                                                                                                                                                                                                                                                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Trache
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                    Triticum aestivum (Wheat).
                                                                                                                                                                                                                            SEQUENCE
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Hsia C.C., Anderso
                                                                                                                                                                                                                                                                                                         NCBI_TaxID=4565
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                                                                                                                                                          RQLNPCSQELQSPQQSYL-----QQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL 54
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                                                                                                      PQQPFPQQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQ---
                                                                                         FTQPQQPTP1QPQQPFPQQPQQPFPQQPQPFPQQPPPQTQQSFPLQPQQPFPQQ
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347 AA;
                                                                                                                                                                                                                                                                        Anderson O.D.;
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                                                                                                                                                                                                                              280 AA;
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54.3%;
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C HORDEIN.
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                                                                                                                                                                                  DB 10;
1.7e-45;
hes 23;
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01-NOV-1996
01-DEC-2001
Sec1 precurs
                                                                                                                                                                                                                                                                  Spermatophyta; Magnoliophyta; Liliopsida; Triticeae; Secale.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Secale cereale (Rye).

Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldea

Triticeae; Secale.
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01-JUL-1997
01-DEC-2001
                                         Signal.
                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=CV. GAZELLE; TISSUE=ENDOSPERM;
MEDLINE=92032773; PubMed=1932685;
Hull G.A., Halford N.G., Kreis M., Shewry P.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q05573;
Q05573;
                                                                                             "Isolation and characterisation of genes containing a highly repetitive sequence melant Mol. Biol. 17:1111-1115(1991).
                                                                                                                                                                                                                                                                                                                                                               SEC1
    SEQUENCE
                        CHAIN
                                                                                  EMBL;
                                                                                                                                                                                                                                                            NCBI_TaxID=4550
                                                                                                                                                                                                                                                                                                                      Secale cereale (Rye).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Sequence variation at the Sec-1 locus Plant Syst. Evol. 0:0-0(1997). EMBL, AF000227; AAB58403.1; -SEQUENCE 357 AA; 41625 MW; E321965:
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MEDLINE=97094352;
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11; Mismatches
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a; Poales; Poaceae;
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STRAIN=CV. GAZEILE; TISSUE-ENDOSPERM;

MEDLINE-92032773; PubMed-1932685;

Hull G.A., Halford N.G., Kreis M., Shewry P.R.;

"Isolation and characterisation of genes encoding"
                                               GSEC2-1
                                                                                   01-MAR-2001
01-MAR-2002
                                                                                                                           Q9FR41;
01-MAR-2001
                                                                                                                                                                  Q9FR41
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Eukaryota; Viridiplantae; Str.
Spermatophyta; Magnoliophyta;
      Eukaryota;
                         Secale cereale
                                                                  Secalin.
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                                                                                                                                                                                                                                                                                                                                                                                                                               RQLNPSEQELQSP-----QQPVPKEQSYPQQPYPSHQPFPTPQQYSPYQPQQPFPQPQQP
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yta; Liliopsida;
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; Poales; Poaceae;
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Anderson O.D., Heia C., Torres V.;
"The wheat gamma-gliadin genes: characterization of ten new "The wheat gamma-gliadin gene family struction of ten new manufacture of gamma-gliadin gene family struction of ten new manufacture of gamma-gliadin gene family struction of ten new manufacture of gamma-gliadin gene family struction of ten new manufacture of gamma-gliadin gene family struction of ten new manufacture of gamma-gliadin gene family struction of ten new manufacture of gamma-gliadin gene family struction of gamma-gliadin gene gamma-
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Eukaryota; Viridiplantae; Stra
Spermatophyta; Magnollophyta;
Triticeae; Triticum.
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01-DEC-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                          and further understanding of gamma-gliadin ger
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ
EMBL, AF234642; AAK84772.1; -
NON_TER 241 241
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Triticeae; Secale.
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100;
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(Gli-R2) locu
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yta; Liliopsida; Poales; Poaceae; Pooidea
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Pred. No. 1.6e
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Q94G96;
01-DEC-2001
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Bukaryota; Viridiplantae; Stre
Spermatophyta; Magnoliophyta;
Triticeae; Triticum.
                                         "Production of a panel of recombinant gliadins for characterization of T cell reactivity in coeliac di submitted (AUG-1999) to the EMBL/GenBank/DDBJ datai EMBL; AF175312; AAF42989.1; ...
                                                                                                                                                                                                           01-MAR-2002 (TrEMBLrel. Gamma-gliadin (Fragment)
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"The wheat gamma-gliadin genes: characterization of ten and further understanding of gamma-gliadin gene family s submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
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Eukaryota; Viridiplantae;
                                                                                          Arentz-Hansen E.H., Sollid L.M.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=CV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota;
          InterPro;
                   InterPro;
                               InterPro; IPR003612; AAI
                                                                                                                 STRAIN-YAMHILL;
                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                   NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=4565;
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                                                                                                                                                                                                                                                                                                                             QQPQLPFFPQQPQPFFPQQPQQPFPQLQQPQQPLPQPQQPFPQQQQPFIQ
                                                                                                                                                                                                                                                                                                                                             QQPQQPFPQQPQ0PF--PQQPQQII--FQQPQQ--SYPVQPQQPFPQQPQPVPQ
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PF00234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
          IPR001954; Glia_glutenin.
IPR001768; Try/amyl_inhbtr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IPR001768; Try/amyl_inhbtr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEYENNE;
                                                                                                                                                                                                                                                                                                                                                                                                 PQYQIPTPLQPQQPFPQQPQQPLP---RPQQPFPWQPQQPFPQPQE-----PIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    337 AA;
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                                                                                                                                                                                                                                 (TrEMBLrel.
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                                                                                                                                                                                                                                                                      PRELIMINARY;
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                                                                                                     McAdam S.N., Molberg O.,
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                                                                                                                                                                                                                                                                      PRT;
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a; Poales; Poaceae; Pooidea
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                                                                                                      Kristiansen
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Best Local
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Best Local :
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01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "The wheat gamma-gliadin genes: characterization of ten new sequences and further understanding of gamma-gliadin gene family structure."; Submitted (FEB-200) to the EMBL/GenBank/DDBJ databases.

IRMBL, AF234650; AAK84779.1;
InterPro; IPR001768; Try/amyl inhbtr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=CV. CHEYENNE;
Anderson O.D., Hsia C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
Triticeae; Triticum.
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                                                                                                                                                        QPQQPFPQLQQPQQ-PFPQPQQQLPQPQQPQQSFPQQQRPF1QPSLQQQLNPCKNILLQQ
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97; Conserv
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Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 412; DB 10;
Pred. No. 1.6e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
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Pred. No. 1.5e-30;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E46B6A4CB5BDB8C2 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 327;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2001 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
Pfam: PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
NON_TER 1
                                                                                                                                                                                                                                                                                                                                                     Aegilops speltoides (Goat grass).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON_TER
                                                                 InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr
                                                                                                               Genet. Resour. Crop Evol. 0
EMBL; AJ389720; CAC10624.1;
                                                                                                                                                             "Polymorphisms in two homeologous
evolution of cultivated wheat.";
                                                                                                                                                                                                              von Bueren M.;
                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=CV. ACCESSION PI 542245;
                                                                                                                                                                                                                                                                                                     NCBI_TaxID=4573;
                                                                                                                                                                                                                                                                                                                               Spermatophyta; Magnoliophyta; Liliopsida; Poales; Triticeae; Aegilops.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gamma-gliadin (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9FTC1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9FTC1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aegilops speltoides (Goat grass).
Eukaryota; Viridiplantae; Streptophyta; Embryophyt
Spermatophyta; Magnoliophyta; Liliopsida; Poales;
Triticeae; Aegilops.
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01-MAR-2001 (TrEMBLrel. 16,
01-JUN-2002 (TrEMBLrel. 21,
Gamma-gliadin (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9FTC2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Polymorphisms in two homeologous gamma-gliadin evolution of cultivated wheat.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00234; tryp_alpha_amyl; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genet. Resour. Crop Evol. 0 EMBL; AJ389719; CAC10623.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAG56
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=CV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         113 QQPYPQQPQQPFPQTQQPQQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129 QQSYPVQPQQPFPQQPQPVPQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79 P-RPOQPEP---WQPQQPFP----QPQEPIPQQPQQPFPQQPQQPFP---QQPQQII---FQQP 128
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255 AA;
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                                                                                                                                                                                                                                                                                                                             Aegilops.
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30265 MW;
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61.7%;
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                                                                                                                                                                                   gamma-gliadin
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RESULT 15
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Search completed: May 27, Job time : 33 secs
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Best Local Similarity
Matches 94; Conserv
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Best Local S
Matches 91
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SEQUENCE
                                                                                                                                                                                                                                                                                          STRAIN-CV. CHEYERINE;
STRAIN-CV. CHEYERINE;
Anderson O.D., Hsia C., Torres V.;
Anderson O.D., Hsia C., Torres V.;
Anderson O.D., Hsia C., Torres V.;
The wheat gamma-gliadin genes: characterization of ten new sequences and further understanding of gamma-gliadin gene family structure.";
submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF234647; AAK84777.1; -.
InterPro; IPR001768; Try/amyl_inhbtr.
Fiam; PF00234; tryp_alpha_amyl; 1.
SEQUENCE 302 AA; 34286 MW; 663B37C768BAE782 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Triticum aestivum (Wheat).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;

Triticeae; Triticum.

NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-2001 (TrEMBLrel. 19, 01-DEC-2001 (TrEMBLrel. 19, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q94G93
                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                             Local St. 91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          156 SMV 158
                                                           132
                                                                                    113 QQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120 PQQIIFQQPQQSY--PVQPQQPFPQQP----QPVPQQ-------ASCIW 155
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                                                                                                                                   IPTPLQPQQPFP--QQPQQPLPRPQQPFPWQPQQPFP-QPQEPI--PQQPQQPFP--QQP 112
                                                          QQPFPQPQQQ--FPQPQ-----QPQQSFPQQQQPAIQ 161
                                                                                                                                                                                                                                                    Similarity
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256 AA;
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                                                                                                                                                                                                                                      Conservative
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30456 MW; 8D2B52ED7B6CF9E0 CRC64;
                2003, 14:46:48
                                                                                                                                                                                                                                      42.4%; Score 384.5; DB 10; Length 302; 58.0%; Pred. No. 5.1e-28; Live 11; Mismatches 28; Indels 27;
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Last sequence update)
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Post-processing: Minimum Match 0% Maximum Match 100%
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Maximum DB seq length: 2000000000
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1: gb_ba:
2: gb_htg
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   2054640 seqs, 14551402878 residues
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

RESULT 1
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HVE1393VR
HVE139
DEFINITION H. Vult
ACCESSION Z8456
VERSION Z8456
VERSION BARE -:
SOURCE Hordee
ORGANISM Hordee
CORGANISM Eukary
Sperme
REFERENCE 1 (be
AUTHORS Suonic

HVE1393VR
H.Vulgare BARE-1 long terminal repeat DNA; ID E1393VR.
Z84369
1 G1:2598547
Z84369.1 G1:2598547
BARE-1 retrotransposon; long terminal repeat.
Hordeum vulgare
Hordeum vulgare:
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticae; Hordeum.
1 (bases 1 to 388)
Suoniemi, A., Schmidt, D. and Schulman, A.H.
BARE-1 insertion site preferences and evolutionary conservation of

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REFERENCE
AUTHORS
TITLE
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Direct Submission
Submitted (24-JAN-1997) Schulman A.H., University c
Submitted (54-JAN-1997) Schulman A.H., University c
Institute of Biotechnology, P.O. Box 56, Biocentre
9, FIN-00014 Helsinki, Finland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           H.vulgare BARE-1 long terminal repeat DNA; IC 284562.1 GI:2598543
BARE-1 retrotransposon; long terminal repeat.
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41; Conserv
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Genetica 100 (1-3), 219-230 (1997)
98103449
  41;
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Direct Submission
Submitted (24-JAN-1997) Schulman A.H.,
Institute of Biotechnology, P.O. Box 5
9, FIN-00014 Helsinki, Finland
                                                                                                                                                                                                                                                                                                                                                     BARE-1 insertion site preferences and RNA and cDNA processing sites Genetica 100 (1-3), 219-230 (1997)
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Suoniemi, A., Schmidt, D. and Schulman, A.H.
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.
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/db_xref="taxon:4513"
142. .>273
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94 c 87 g
                                                                     /note="flanking genomic sequence matches
retrotransposon (Z17327) nt 308-439"
133 c 129 g 157 t
                                                                                                               /transposon="BARE-1"
417. .548
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/db_xref="taxon:4513"
<153. .300
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<153. .300</pre>
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repeat DNA; ID E1326PR.
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6, Biocentre 1, Viikinkaari
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AR170979
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      37; Conserv
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Waters,B., Miao,V., Ho,Y.Wai. and Tong,S.Kah.
Method for isolation of biosynthesis genes for patent: US 6297007-A 83 02-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unknown
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Klebsiella pneumoniae
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                                                                                                                                                                                                                                                                   University, of Korea
                                                                                                                                                                                                                                                                                 Submitted (26-AUG-1999) Microbiology, Coll. Med., university, San29, Anseo-dong, Cheonan, Choongnam
                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                        Kim, J
                                                                                                                                                                                                                                                                                                                                                             Bacteria; Proteobacteria; gamma subdivision;
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1. .1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="unknown"
361 c 319 g
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137. .634
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/transl_table=11
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/protein_id="AAF00479.1"
/db_xref="GI:6003515"
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128. .131
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                                                                                                                                                                                                   /db_xref="taxon:573"
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                                                                                          /gene="dhfrXII"
/function="trimethoprim resistance"
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misc_feature
              11
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                                                                                                                                                                                                                                                             AR210350 10
Sequence 51 from patent US
AR210350
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35; Conserv
                                  Similarity 92.3
36; Conservative
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                                                                                                                   Location/Qualifiers
1. .163
                                                                                         /organism="unknown"
45 c 46 g
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LQFGEWQRNDILAGIFEPAMIDIDLAILLTKAREHSVALVGPAAEEFFDPVPEQDLFE
ALRETLKLWNSQPDWAGDERNYVLTLSRIWYSAITGKIAPKDVAADCAIKRLPAQYQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /translation="MFIQTAFSFSGVIQCLFCLFSGLRLHGLRRFSVFLASSPCVASASYERCSAVEPRWRTVFSRLAPVAKFKLSVLASGSNISVKPTRILRSAYLAR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VLLEAKQAYLGQKEDHLASRADHLEEFIRFVKGEIIKSVGK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="streptomycin 3', adenylyltransferase"
/protein_id="AAF00481.1"
/db_xref."GI:6003517"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="unknown"
/protein_id="AAF00480.1"
/db_xref="GI:6003516"
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/gene="aadA2"
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1054. .1833
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1044. .1047
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1044..1833
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ARRNG"
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0; Mismatches
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KEYWORDS
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AX316838
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AR147996
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TITLE
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Frudakis, T.N., 5
Gnetum gnemon mRNA for GGM13.
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Sequence
AX316838
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Sequence
AR147996
                        GGN132219
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                                                                                                                                                                                                                                                                                       Frudakis,T.N., Retter,M.W., W.
                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                   cancer
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Location/Qualifiers
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                                                                                                                                     Similarity
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/db_xref="taxon:9606"
138 c 126 g 110
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138 c 126 g
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GGN132212
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AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Winter, K.U.,
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Gnetum gnemon
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                                                                                                                                                                                                                                                          GGM6, p
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Max-Planck-Institut for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             conifers than to flowering plants Proc. Natl. Acad. Sci. U.S.A. 96
                                                              MADS-box genes reveal that gnetophytes conifers than to flowering plants Proc. Natl. Acad. Sci. U.S.A. 96 (13),
                                                                                                                                            Spermatophyta; Gnetophyta; 1 (bases 1 to 1447)
                                                                                                                                                                                                           ggm6 gene; MADS domain Gnetum gnemon.
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                                                                                                                           Winter, K.U., Becker, A., Munster, T., Kim, J.T.,
                                                                                                                                                                                             Gnetum gnemon
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                (bases 1 to 1447)
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271 c 297 g
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LIIFSSSGKLFEYSSASSSMKKIIERYQKVSGARITEYDNQHLYCEMTRMKNENEKLQ
TNIRRMMGEDLTSLTMTELHHLGQQLESASSRVRSRKNQLMLQQLENLRRKERILEDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="
167..8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:3382"
167. .880
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/protein_id="CAB44459.1"
/db_xref="GI:5019464"
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/note="floral homeotic gene"
/codon_start=1
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97.1%;
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; Gnetopsida; (
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                                                                96 (13), 7342-7347 (1999)
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                                                                                                                                                               ; Embryophyta; Tracheophyta; Gnetales; Gnetaceae; Gnetum
                                                                                                are more closely
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                                                                                                                                Saedler,H.
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revised by [4]
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Michelmore,R.W., Shen
RG polynucleotides for
plants
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Max-Planck-Institut for
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Submitted (12-JAN-1999)
Max-Planck-Institut for
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37; Conser
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                                                                                                                                                                                                               Unknown.
Unclassified
                                               34;
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                                                           Similarity
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3 372 t 1 others
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/protein_id="CAB44452.2"
/db_xref="GI:6468288"
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                                                                                                        /organism="unknown"
940 c 1051 g
                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="ggm6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /sub_species="gnemon"
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patent US 6350933.
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Pred. No. 1.1;
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Breeding R
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                                                                                                                                                       26-FEB-2002;
                                                 Mismatches
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                                                   Domiati-Saad,R. and Lipsky,P.E.
Staphylococcal enterotoxin A induces survival of VH3-expressing human B cells by binding to the VH region with low affinity
J. Immunol. 161 (3), 1257-1266 (1998)
 2 (bases 1 to
Domiati-Saad, R.
                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae 1 (bases 1 to 345)
                                                                                                                                                                          antigen receptor; immunoglobulin; immunoglob
immunoglobulin superfamily; variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 (bases 1 to 5507)
Meyers,B.V., Shen,K.A., Rohani,P.J., Baut
Direct Submission
Submitted (17-DEC-1998) Vegetable Crops,
Davis, CA 95616, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Meyers,B.C., Shen,K.A., Rohani,P., Gaut,B.S. Receptor-like genes in the major resistance subject to divergent selection Plant Cell 10 (11), 1833-1846 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Meyers, B.C., Chin, D.B., Shen, K.A., Sivaramakrishnan, S. Lavelle, D.O., Zhang, Z. and Michelmore, R.W.
The major resistance gene cluster in lettuce is highly and spans several megabases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lactuca sativa
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids II; Asterales; Asteraceae; Lactuceae;
                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                       Z96972.1 GI:2370221
                                                                                                                                                                                                                                  H.sapiens mRNA for immunoglobulin (A3-8; VH3, 3-15/DP-38).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lactuca sativa RGC2D pseudogene, AF113953 AF072270
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        /map="Dm3 resistance gene
940 c 1051 g 1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:4236"
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/cultivar="Diana"
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Pred. No. 1.1;
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                                                                                                                       Hominidae;
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1 (bases 1 to 163)

Botstein,D.A., Cohen,R.L., Goddard,A.D., Gurney,A.
Lawrence,D.A., Levine,A.J., Pennica,D., Roy,M.Ann.
WISP polypeptides and nucleic acids encoding same
Patent: US 6387657-A 52 14-MAY-2002;
Location/Qualifiers

1. .163
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Alsbrooks, S
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AC107595.3 GI:21737300
HTG; HTGS_PHASE1.
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Submitted (23-JUN-1997) Domiati-Saad R., Department of Medicine, Harold C. Simmons Arthritis Research Center, Control of Con
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..
                                                     Mammalia;
                                                                                 Rattus norvegicus
                                                                                            Norway rat
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83 c 116 g 70
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/db_xref="taxon:9606"
                                                       Eutheria;
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arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence

is not known and their order in this sequence record

as soon as it is available and the accession number will

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Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burch, P., Burkett, C., Burch, K.L., Byd, N.C., Carron, T.F., Carter, M., Cavazos, S.R., Chack, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., David, R., David, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., David, R., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y. Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y. Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y. Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y. Dinh, H.H., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y. Dinh, H.H., Delaney, K.R., David, R., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flags, N., Ford, J., Foster, D., Frantz, P., Frantz, P., Frantz, P., Frantz, P., Frantz, P., Erantz, P., Eran
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On Jul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Worley, K.C.
Direct Submission
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Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 155394)
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                                     NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a 'working draft' sequence. It currently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jul 12, 2002 this sequence version replaced gi:18701904
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                                                                                                                                                                                            Chemistry: Dye-terminator Big Dye: 100% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 103821 bases at least Q40 Consensus quality: 113213 bases at least Q30 Consensus quality: 113213 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center project name: GOWP Center clone name: CH230-273L5
                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing vector: Plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center code:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               http://www.hgsc.bcm.tmc.edu/
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Hordeum vulgare
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Spermatophyta; Magnollophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.
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Suoniemi,A., Schmidt,D. and Schulman,A.H. BARE-1 insertion site preferences and evolutionary conservation
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Z84567.1 GI:2598520
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Direct Submission
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Submitted (24-JAN-1997) Schulman A.H., University of Helsinki,
Institute of Biotechnology, P.O. Box 56, Biocentre 1, Vilkinkaari
9, FIN-00014 Helsinki, Finland
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10-JUL-1998;
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                                                                                                                                                                      Hordeum vulgare
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reakfast cereal; snack food; cake; pastry; flour based sauce
ting; adhesive; building material; packaging material; grain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                           | sauce;
| grain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
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RESULT 3
AAZ45987
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DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCR primers AAZ45972-73 were used to amplify a 477 bp fragment (approximately 2/3 of the whole gene) of the barley C hordein gene. This gene encodes a glutenin, and was modified according to the method of the invention. The specification describes a method for producing a modified glutenin or seed storage protein, by adding to the protein a domain that confers the ability to incorporate into gluten, or to bind a ligand or other macromolecule. The domain can be any domain that twill bind ligands that may be useful in food preparation or in food composition, e.g. a domain that binds lipids or starch. The method is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CSIR ) COMMONWEALTH SCI & IND RES ORG (GOOD-) GOODMAN FIELDER LTD. (LIMA-) GRP LIMAGRAIN PACIFIC PTY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    used for producing modified glutenins. Glutenins and seed-storage protein are useful for preparing food products such as leavened or unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, pastries and foods containing flour based sauces. Glutenins and seed-storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging materials. Grain or parts of grain containing the modified glutenin and seed-storage protein is useful for preparing food products. The modified glutenins and seed-storage proteins are also useful as modifiers of food glutenins and seed-storage proteins are also useful as modifiers of food
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-147597/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 11; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Appels R, Morell M,
                                                                                                                                                                                                                                                            C hordein gene; glutenin; seed storage protein; gluten; bread; pasta; noodle; breakfast cereal; snack food; cake; pastry; flour based sauce
                                                                                                                                                                                                                                                                                                          cDNA encoding a synthetically trucated C hordein protein (glutenin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 51 BP; 11 A; 11 C; 15 G; 14 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                            AAZ45987 standard; cDNA; 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        products in food industry.
                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                              SS.
                                                                                                                                                                                                                                                                                                                                            25-APR-2000 (first entry)
                                                                                                                                                                                            Hordeum vulgare
                                                                                                                                                                                                                                              film;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ing glutenin or seed-storage protein for preparing foodstuffs, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                              coating; adhesive; building material; packaging material; grain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69 GTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAGGGATCC 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                Location/Qualifiers
1..477
/transl_except=
/transl_except=
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100.0%;
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Pred. No.
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 (pos:
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   58..60,
313..315
316..318
319..32
322..32
337..33
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   3..315, aa: Gln)
6..318, aa: Gln)
9..321, aa: Pro)
2..324, aa: Phe)
7..339, aa: Gln)
0..342, aa: Gln)
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                                                                                                     Gln)
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RESULT 4
AAK51591
ID AAK5
XX
AAK AAK5
AC AAK5
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DT 06-N
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DT WHUMB
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HUMB
KW VACC
KW C158
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bind ligands that may be useful in food preparation or in food is composition, e.g. a domain that binds lipids or starch. The method is used for producing modified glutenins. Glutenins and seed-storage protein are useful for preparing food products such as leavened or unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, pastries and foods containing flour based sauces. Glutenins and seed-storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging materials Grain
Human; cytokine; cell proliferation; cell differentiation; gene therapy; vaccine; peptide therapy; stem cell growth factor; haematopolesis; tissue growth factor; immunomodulatory; cancer; leukaemia:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or parts of grain containing the modified glutenin and seed-storage protein is useful for preparing food products. The modified glutenins and seed-storage proteins are also useful as modifiers of food products in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hordein protein, which is a glutenin. The protein is designated ANG-deltaCys7Cys236, and is modified, according to the method of the invention. The specification describes a method for producing a modified glutenin or seed storage protein, by adding to the protein a domain that confers the ability to incorporate into gluten, or to bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; AAY54568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-JUL-1998;
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                                                                                                                                                                           06-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 3; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modifying glutenin or seed-storage protein for preparing foodstuffs, films, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-147597/13
                                                                                                                                                                                                                                                                                           AAK51591 standard; cDNA; 1949 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 477 BP; 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence encodes a synthetically truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LIMA-) GRP LIMAGRAIN PACIFIC PTY LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ligand or other macromolecule. The domain can be any domain that will
                                                                                                                                                                                                                                                                                                                                                                                                                                         424 CAACAACCTCAACCAGTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAG 477
                                                                                                                     polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54 CTAAACCCTTGCAGCGTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAG 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98AU-0004604.
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/transl_except=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28.3%;
                                                                                                                        SEQ ID NO 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; 186 C; 43 G; 86 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bekes F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 39.6; DB 21 Pred. No. 0.00076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tamas L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (pos: (pos: (pos: (pos:
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349
352
358
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 477;
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Phe)
Pro)
Gln)
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designated
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RESULT 5
AAI57798
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27-APR-2000;
20-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to polynucleotides (AAK51456-AAK53435) and the encoded polypeptides (AAM8323-AAM80302) that exhibit activity elating to cytokine, cell prolliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopolesis regulating activity, tissue growth factor activity, immunomodulatory activity and activity, inhibit activity and may be useful in the diagnosis and/or activity in the diagnosis and/or activity and may be useful in the diagnosis and/or activity and may be useful in the diagnosis and/or activity.
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Zhao QA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids encoding polypeptides with cytokine-like activities, useful in diagnosis and gene therapy - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-SEP-2000;
20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-FEB-2001; 2001WO-US04098
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nervous system disorder; arthritis; inflammation; ss.
           Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
                                                                                                                                                                          AAI57798 standard; cDNA; 1630
                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1949 BP; 484 A; 434 C; 517 G; 514 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                             Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the sequence listing
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amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
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                                                                           Human polynucleotide SEQ ID NO
                                                                                                           22-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                               inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treatment of cancer, leukaemia, nervous system disorders, arthritis and
                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                              missing at the time of publication
                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                    11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTGCAGC 68
                                                                                                                                                                                                                                                      Page 816-818; 6221pp; English.
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                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                           (first entry)
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2000US-0693325
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2000US-0654936
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                                                                                                                                                                                                                                                                                                                                25.4%;
75.9%;
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Pred.
                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                  35.6; DB :
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                                                                                                                                                                                                                                                                                                                                                 Length 1949;
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AAV69558/c
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Best Local S
Matches 42
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25-APR-2000;
09-JUL-2000;
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Wang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chemokinetic;
leukaemia; ss
                                                                                                                                                                                                                                                                                                                                           The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-JUL-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel nucleic acids and such as central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-OCT-
29-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-DEC-2000; 2000WO-US34263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200153312-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-SEP-2000;
                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                     Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                    Note: The sequence data
                                                                                                                                                                                                                                                                                                             assays
Peptide synthase;
                       Soil derived
                                                                                             AAV69558 standard;
                                               15-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -OCT-2000;
                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-442253/47.
DB; AAM38642.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QA,
                                                                                                                                                                                                                                                                                                 disorders
                                                                                                                                                                            11
                                                                                                                                                       10
                                                                                                                                                                                                    l Similarity
42; Conserv
                                                                                                                                                                                                                                                                                                           for receptor activity, arthritis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Liu C,
Wang Z,
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 1; 10078pp;
                                                                                                                                                                                                                                                   1630
                                                                                                                                                                            GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTT
                                                                                                                                                      GCATGCTCCCGGCCCCATGGCCGCGGATTTTCCCGGGTCGACGATTTCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0488725.
2000US-0553317.
2000US-05598042.
2000US-0620312.
2000US-06531450.
2000US-0663193036.
2000US-06331036.
                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       thrombolytic; drug screening; arthritis; inflammation;
                       peptide synthase clone ps3 DNA
                                               (first entry)
                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Asundi V, Ch
Wehrman T, X
, Goodrich R,
                                                                                                                                                                                                                                                  392 A; 422 C; 438 G; 378 T;
  soil;
                                                                                              DNA;
                                                                                                                                                                                                                 25.3%;
79.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polypeptides, useful system injuries -
                                                                                               1222
                                                                                                                                                                                                                                                                                     for this patent did
  lichen; antibiotic biosynthesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chen R, Ma Y,
, Xu C, Xue AJ,
R, Drmanac RT;
                                                                                                                                                                                                     Score 35.4; D
Pred. No. 0.03
0; Mismatches
                                                                                                                                                                                                       0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                 0.03;
                                                                                                                                                                                                                              DB 22;
                                                                                                                                                                                                                                                                                      not form part
                                                                                                                                                                                                                                                                                                               inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qian >
Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                       11;
                                                                                                                                                                                                                                                      0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   yβ,
                                                                                                                                                                                                                              Length
                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ren F
Zhang
      humus;
                                                                                                                                                                                                                              1630;
                                                                                                                                                                                                                                                                                         0f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disorders
                                                                                                                                                                                                                                                                                                               leukaemias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ή,
                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                         the
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                                                                                                                                                                                 63
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RESULT 7
AAI58172/c
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Best Local S
Matches 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence encodes a peptide synthase clone, isolated from soil. This protein is used in a method for the recovery of antibiotic blosynthetic DNA from humic materials or lichen. The PCR products of the invention have the potential to be used as therapeutic molecules including antibiotics, immunosuppressors and antitumour agents. The method allows access to the reservoir of genetic diversity in soil pathogenic micro-organisms, in order to find new antibiotics. It also allows access to novel biosynthetic genes/enzymes that can be used to produce antibiotics or produce specific compounds, enzymatically,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapeutic; immunosuppressor; antitumour agent; pathogen; genetic diversity; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Miao VPW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9853097-A2
                                                                                                                                          Human; nootropic; immunosuppressant; cytostatic; gene therapy; cance. peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TERR-) TERRAGEN DIVERSITY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             in vitro
                                                                                                                                                                                                       Human polynucleotide SEQ ID
                                                                                                                                                                                                                                                       AAI58172;
                                                                                                                                                                                                                                                                               AAI58172 standard;
                                                                                                                                  chemokinetic; thrombolytic;
                                                                                                                                                                                                                                22-OCT-2001
21-JAN-2000; 2000US-0488725
                        26-DEC-2000;
                                                                        WO200153312-A1
                                                                                               Homo sapiens
                                                                                                                      leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 degenerate primers - used
from soil/lichen material
                                                                                                                                                                                                                                                                                                                                           1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1999-070158/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17; Page 80; 98pp; English.
                                                                                                                                                                                                                                                                                                                                                                11
                                                                                                                                                                                                                                                                                                                                                                                      l Similarity 92.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW82710
                                                                                                                                                                                                                                                                                                                                           GCATGCTCCCGGCCGCCATGGCCGCGGGATTGGCACGACG
                                                                                                                                                                                                                                                                                                                                                                GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seow KT,
                                                                                                                       SS
                         2000WO-US34263
                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                      BP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-CA00488
                                                                                                                                                                                                                                                                                                                                                                                                                                       272 A; 361 C;
                                                                                                                                                                                                                                                                               cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                    25.1%;
92.5%;
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                                                                                                                                                                                                                                                                                2597
                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                                                                                                                                                                        Score 35.2; In Pred. No. 0.03 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for
                                                                                                                                                                                                                                                                                ВΡ
                                                                                                                                                                                                           375
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                                                                                                                                                                                                                                                                                                                                                                                                                                         319 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 recovering antibiotic biosynthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HW;
                                                                                                                                                                                                                                                                                                                                                                                                                                         270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                      .033;
                                                                                                                                                                                                                                                                                                                                                                                                                DB 20;
                                                                                                                                                                                                                                                                                                                                             1137
                                                                                                                                                                                                                                                                                                                                                                    50
                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                       inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                   1222;
                                                                                                                                                                                                                                                                                                                                                                                           0;
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RESULT 8
AAI57799
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Best Local S
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09-JUL-2000;
19-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, activinyinhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening, and the contactivity according to the contactivity and inflammation.
                                                                                                                            peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-SEP-2000;
19-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-AUG-2000;
                                                                                                                                                                                                                                   22-OCT-2001
                                                                                                                                                                                                                                                                                          AAI57799 standard; cDNA; 3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             assays for receptor activity, arthritis and inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; AAM39016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-NOV-2000;
                                                                                                              chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                       Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
                                                                                                                                                                                                     Human polynucleotide SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C.N.S disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HYSE-) HYSEQ INC.
            26-JUL-2001
                                         WO200153312-A1
                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                     2561 GCATGCTCCCGGCCGCCATGCCCGCGGGATTTTCCCCGGGTCGACGA 2516
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΥT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The sequence data for this patent did not form part of the printed
                                                                                                                                                                                                                                                                                                                                                                                               11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                               1 Similarity
39; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Liu C,
Wang Z,
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 375; 10078pp; English.
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                                                                                                 SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0552317.
2000US-0598042.
2000US-0620312.
2000US-0653450.
2000US-0662191.
2000US-0693036.
2000US-0727344.
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP; 733 A; 607
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Wehrman T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wehrman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goodrich R,
                                                                                                                                                                                                                                                                                                                                                                                                                                            24.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptides, useful for treating
system injuries -
                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chen R, Ma Y, Xu C, Xue AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 34.8;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; 690 G; 567 T; 0 other;
                                                                                                                                                                                                                                                                                             BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                             .055;
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. Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 2597;
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Zhang .
                                                                                                                                                                                                                                                                                                                                                                                                 56
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                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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RESULT 9
AAX76514
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                                                                                                                                                                                                                                                                                                                                                                                  Best Local
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and assays for receptor activity, arthritis and inflammation, leukaemias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-JUL-2000;
19-JUL-2000;
                                                  wNT-1 induced secreted protein; wISP-1; wISP-2; wISP-3; CTGF; tumour connective tissue growth factor; cancer; melanoma; arteriosclerosis; leukaemia; lymphoid malignancy; haematopoiesis-related disorder; tissue-growth disorder; skin disorder; desmoplasia; fibrotic lesion; kidney disorder; bone-related disorder; osteoporosis; trauma; burn; connective tissue disorder; catabolic state; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-NOV-2000;
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19-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-DEC-2000;
                                                                                                                                                    WISP 5' cloning site region SEQ ID NO:51.
                                                                                                                                                                                 06-AUG-1999
                                                                                                                                                                                                                                        AAX76514 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3186 BP; 695 A; 1058 C; 894 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Note: The sequence data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C.N.S disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               such as central nervous system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAM38643
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-APR-2000;
                                       testicular-related disorder; angiogenesis; immunological disorder; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001-442253/47.
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                                                                                                                                                                                                                                                                                                            11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAAC
                                                                                                                                                                                                                                                                                                                                                                    Similarity 38; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang 2,
2hou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 2; 10078pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Liu C,
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2000US-0620312.
2000US-0653450.
2000US-0662191.
2000US-0693036.
2000US-0727344.
                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US34263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0488725
2000US-0552317
                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wehrman T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Asundi V,
                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                  24.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goodrich R,
                                                                                                                                                                                                                                        163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for this patent did not form part
                                                                                                                                                                                                                                        ВΡ
                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chen R,
                                                                                                                                                                                                                                                                                                                                                                                 Pred.
                                                                                                                                                                                                                                                                                                                                                                                  Score 34.4;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Xu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            injuries
                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drmanac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            usetul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y,
AJ,
RT;
                                                                                                                                                                                                                                                                                                                                                                                                                             539 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                 .08;
                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qian XB,
Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tor treating
                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhang J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ren F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              disorders
                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wang
                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ö
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Synthetic

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AAX55630
III AAX5X
XX
AC AAX5
AC AAX5
AX 5 6-J
AX 5 7 C
AX 6 7 C
AX 7 M
AX 6 M
AX 7 M

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorders, skin disorders, desmoplasia, fibrotic lesions, kidney disorders, bone-related disorders such as osteoporosis, trauma such as burns, incisions, and other wounds, connective tissue disorders, catabolic states, testicular related disorders, and inflammatory, angiogenic and immunologic disorders including arteriosclerosis. The products can also be used for detection and diagnosis especially of individuals with neoplastic cell growth or proliferation. The products can be used in the production of transgenic or knock-out animals.

Antibodies can be used to induce death in WISP-1, 2 or 3 overexpressing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and WISP-3 have homology to connective tissue growth factor (CTGF). Products from the present invention can be used to treat WISP-related disorders such as breast, ovarian, and colon cancer or melanoma. The products can be used to treat arteriosclerosis. The products can also be used to treat other diseases e.g. benign and malignant tumours, leukaemia and lymphoid malignancies, neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithelial, stromal, and blastocoelic disorders, haematopoiesis-related disorders, tissue-growth disorders, skin disorders, desmoplasia, fibrotic lesions, kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes Wnt-1 induced WISP-1, 2 and 3. The novel WISP polypeptides, and WISP-3 have homology to connective tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botstein
Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9921998-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated Wnt-1 induced secreted polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-APR-1998;
29-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-337420/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC
                                                                                                                                                                                                                            Human; murine; clone 65; clone 320; Wnt; arteriosclerosis; malignancy;
melanoma; cancer; breast; ovary; colon; tumor; cardiac; renal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 163 BP; 35
                               06-MAY-1999
                                                                                                                                      Synthetic
                                                                                                                                                                                                                      melanoma; cancer;
                                                                                                                                                                                                                                                                                                                                                             26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                   AAX55630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAX55630 standard;
                                                                                     WO9921999-A2
                                                                                                                                                                                               inflammation;
                                                                                                                                                                                                                                                                                                         cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG
                                                                                                                                                                                                                                                                                                            site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cohen RL,
Levine ÅJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0081695.
97US-0063704.
98US-0073612.
                                                                                                                                                                                               angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US22991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          203; 284pp; English
                                                                                                                                                                                                                                                                                                            region of plasmid pGEM-T
                                                                                                                                                                                                                      breast;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; 45 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24.4%;
92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard A,
Pennica D,
                                                                                                                                                                                                  ovary; colon; tumor; cardiac;
s; immunological disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΒP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 34.2; DB Pred. No. 0.041; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gurney AL,
Roy MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               secreted polypeptides, designated WISP-1, WISP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WISP-1, 2 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ζ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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ABN84401/c
ID ABN844
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RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to human and murine cDNA clones 65 and 320, encoding polypeptides that are induced by Wnt. Clone 65 and 320 polypeptides, and their antagonists, are used to treat disorders associated with these polypeptides, e.g. arteriosclerosis, malignancies (particularly melanoma or cancer of the breast, ovary and colon), but also benign tumors, cardiac, renal, catabolic or many other types of disease, inflammation, angiogenesis and immunological disorders, more generally to induce death of Wnt-induced cells. Antibodies against the polypeptides are used as therapeutic antagonists and as diagnostic immunoassay or affinity-purification reasonable. Clone 65 and 320 nucleic acids are used as hybridization probes or primers (to detect related sequences); for chromosome and gene mapping; to generate antisense enguences: for recombinant columnation production and to generate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-FEB-1998;
29-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequences); for chromosome and gene mapping: to generate ancusers exequences; for recombinant polypeptide production and to generate transgenic or 'knockout' animals (for development of, and screening drugs). The polypeptides are used to raise (or purify) specific antibodies; as immunoassay reagents and in drug screens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human and murine genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-326705/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Examples; Fig 9; 114pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Levine AJ,
                                                                                                                                                                                                                                                                                                                                      01-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                   ABN84401;
                                                                                                                                                                                                                                                   gene;
                                                                                                                                                                                                                                                                                                           Human Kv4.3 potassium channel (short form) cDNA
                                                                                                                                                                                                                                                                                                                                                                                               ABN84401 standard; cDNA; 2064 BP
                             23-OCT-1998;
                                                          23-OCT-1998;
                                                                                     28-MAY-2002
                                                                                                                    US6395477-B1
                                                                                                                                                                                                                                                                 heart disease;
                                                                                                                                                                                                                                                                             Kv4.3; potassium channel;
                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                     SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 Similarity 92... 36; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pennica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 35
                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0073612
97US-0063704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US22992.
                                                                                                                                                                                                                                                                nootropic;
                              98US-0178109
                                                          98US-0178109
                                                                                                                                                                           Location/Qualifiers 73..1983
                                                                                                                                                            /*tag=
                                                                                                                                                /product= "Kv4.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; 45 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.4%;
92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               induced by Wnt and derived polypeptides
                                                                                                                                                                                                                                                                 neuroprotective; cardiant; gene therapy;
                                                                                                                                                                                                                                                                                  human; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46 G; 37 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34.2; DB 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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0;

(AMHP) AMERICAN HOME PROD CORP

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RESULT 12
ABN84400/c
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is that of cDNA encoding the short isoform of novel human potassium channel Kv4.3. 2 Isoforms of human Kv4.3 have been identified. One form is full-length (hKv4.3 long) while the second form has a deletion of 19 amino acids in the carboxy domain after the predicted sixth transmembrane domain (hKv4.3 short). Human heart primarily expresses hKv4.3 long, whereas human brain contains both forms. To obtain the present hKv4.3 short cDNA, PCR amplification was performed using primers that flanked the 57 bp insert in hKv4.3 long. The invention provides Kv4.3 polypeptides, polynucleotides, and methods for producing these polynucleotides. The Kv4.3 polypeptides and polynucleotides are useful in the diagnosis, treatment and screening of human diseases relating to an excess or deficiency of hKv4.3 activity, including Alzheimer's
                                                                                                                                                                            US6395477-B1
                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated polynucleotide encoding human Kv4.3 potassium channel polypeptide, useful as probe in a diagnostic method for detecting nucleic acid encoding human Kv4.3, and for treating Alzheimer's and
                            Cockett MI, Dilks DW,
                                                                                                                                                                                                                                                                                                              gene; ss.
                                                                                                                                                                                                                                                                                                                                          Kv4.3; potassium channel;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABN84400 standard; cDNA; 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2064 BP; 446 A; 678 C; 545 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 7; Column 21-22; 19pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-556093/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cockett MI,
WPI; 2002-556093/59
                                                       (AMHP ) AMERICAN HOME PROD CORP
                                                                                       23-OCT-1998;
                                                                                                                   23-OCT-1998;
                                                                                                                                                 28-MAY-2002.
                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                       Human Kv4.3 potassium channel (long form) cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease and heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               heart diseases
                                                                                                                                                                                                                                                                                                                            heart disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2015 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGACA 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCA 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 Similarity
37; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dilks DW,
                                                                                      98US-0178109
                                                                                                                   98US-0178109
                                                                                                                                                                                                                                                                                                                            nootropic;
                                                                                                                                                                                                                                    Location/Qualifiers 73..2040
                                                                                                                                                                                                       /*tag= a
/product= "Kv4.3"
                                                                                                                                                                                                                         /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.3%;
88.1%;
                         Ling HC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ling HC,
                                                                                                                                                                                                                                                                                                                         human; Alzheimer's disease; neuroprotective; cardiant; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sokol
                              Sokol PT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0.098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         395 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 24; Length 2064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΡŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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RESULT 13
AAX83364
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Best Local S
Matches 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 deletion of 19 amino acids in the carboxy domain after the predicted sixth transmembrane domain (hKv4.3 short). Human heart primarily expresses hKv4.3 long, whereas human brain contains both forms. The invention provides Kv4.3 polypeptides, polynucleotides, and methods for producing these polynucleotides. The Kv4.3 polypeptides and polynucleotides are useful in the diagnosis, treatment and screening of human diseases relating to an excess or deficiency of hKv4.3 activity, including Alzheimer's disease and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oligonucleotides based on the published rat sequence were used to screen a whole heart cDNA library. A 511 bp fragment was obtained and used as a probe to rescreen the library. The resulting clones lacked the extreme 5′ and 3′ coding regions, and 5′ and 3′ RACE was therefore used to amplify these sequences from a human brainstem cDNA library. 2 Isoforms of human KV4.3 were identified one form is full-length (hKV4.3 long) while the second form has a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated polynucleotide encoding human Kv4.3 potassium channel polypeptide, useful as probe in a diagnostic method for detecting nucleic acid encoding human Kv4.3, and for treating Alzheimer's and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2121 BP; 457 A; 694 C; 557 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is that of cDNA encoding the long isoform of novel human potassium channel Kv4.3. To obtain the cDNA,
Claim 1; Page 150-151; 221pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-AUG-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 5; Column 15-18; 19pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB; ABB79584.
                                     diagnosis and
                                                       Breast cancer-related DNA from retrovirus antigen (s) - useful for
                                                                                          WPI; 1997-372865/34.
                                                                                                                              Frudakis TN,
                                                                                                                                                                                                     20-AUG-1996;
11-JAN-1996;
                                                                                                                                                                                                                                                                                               17-JUL-1997.
                                                                                                                                                                                                                                                                                                                                   WO9725426-A2
                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                          human endogenous
                                                                                                                                                                                                                                                                                                                                                                                                                         Breast cancer; tumour; gene expression; genome; diagnosis; mammal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Breast cancer tumour specific clone #118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX83364 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             heart diseases
                                                                                                                                                                   (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                          10-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGAGCA 52
2072 GCATGCTCCCGGCCGCCATGGCCGCGGATTTTTACAAGACA 2031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
37; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                     treatment of breast cancer
                                                                                                                              Reed SG,
                                                                                                                                                                                                     96US-0585392
                                                                                                                                                                                                                        96US-0700014
                                                                                                                                                                                                                                                          97WO-US00485
                                                                                                                                                                                                                                                                                                                                                                                                          retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24.3%;
88.1%;
                                                                                                                              Smith JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                          vaccine; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0.099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  413 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 24; Length 2121;
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               Query Match
Best Local :
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Best Local
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequences AAX83201-x83285 and AAX83331-x83415 represent novel breast cancer tumour specific clones which are expressed from a genomic region containing a human endogenous retrovirus (AAX8330). Detection of the clone sequences allows determination of the presence of breast cancer in a mammal. Progression of breast cancer can be monitored by the
                                                                                         AAV68800 to AAV68998 represent nucleotide sequences which encode human breast tumour specific polypeptides. Detection or measurement of human breast tumour specific polypeptides and nucleotide sequences, or the corresponding RNA in a sample, is used for diagnosis and monitoring of breast cancer. Human breast tumour specific polypeptides and nucleotide sequences, and the vectors containing the DNAs, are also useful in vaccines for inhibiting development (for prevention or therapy) of breast cancer. The polypeptides may also be used to raise monoclonal antibodies, used as immunoassay reagents.
                                                                                                                                                                                                                                                                                New DNA sequences isolated from endogenous human retroviral element - and related vectors, transformed cells, proteins and antibodies, useful for diagnosis, treatment and prevention of breast cancer
                                                              Sequence 484 BP; 101 A; 138 C; 126 G; 118 T; 1 other;
                                                                                                                                                                                                                                                     Claim 1; Page 93; 173pp; English.
                                                                                                                                                                                                                                                                                                                                                                              Frudakis TN,
                                                                                                                                                                                                                                                                                                                                                                                                                                        11-DEC-1997;
09-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09845328-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA molecule encoding a breast tumour specific polypeptide #96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV68904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 484 BP; 101 A; 138 C; 126 G; 118 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human, breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV68904 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ing the level of clone expression. Polypeptides encoded by the can be used in vaccines to inhibit or prevent breast cancer.
                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCCAACTAAACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCATGNTCCCGGCCCATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                epitope;
   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer; breast tumour tissue; diagnosis;
ope; endogenous; retroviral element; ss.
                                                                                                                                                                                                                                                                                                                                                                            Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-0991789.
97US-0838762.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US06939.
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75.9%;
               24.1%;
75.9%;
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                                                                                                                                                                                                                                                                                                                                                                              Smith
   0,
Score 33.8; DB Pred. No. 0.077; 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 33.8;
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                              DB 19;
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   13;
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                               Length
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   Indels
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                               484;
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GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG

64

Search completed: May 25,

2003,

19:02:42

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RESULT 15
AAC80887
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 Ъ
                              Qу
                                                                 Matches
                                                                                            Query Match
                                                                                Best Local
                                                                                                                                                                        The present sequence is given in a specification relating to compositions and methods for the treatment and diagnosis of breast cancer. Nucleotide sequences that are preferentially expressed in breast tumour tissue, and the polypeptides encoded by such nucleotide sequences, are used in compositions and vaccines to inhibit the development of cancer, sepecially breast cancer. The progression of a cancer may be monitored by carrying out detection of tumour-specific antigens at subsequent time points and comparing the results from the different time points. CD4+ and/or CD8+ T-Cells isolated from the cancer patient may be treated with tumour-specific polypeptides, polynucleotides encoding the polypeptides or antigen presenting cells expressing the polypeptides. The cells are then administered to the patient to inhibit development of
                                                                                                                                                                                                                                                                                                                                                                                                               An isolated polypeptide comprising an immunogenic portion of a breast tumor protein used for inhibiting the development of cancer, especially breast cancer, and monitoring cancer progression in a patient -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAC80887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC80887
                                                                                                                              Sequence 484 BP; 101 A; 138
                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; Page 135; 187pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-628403/60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Frudakis TN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-APR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-APR-2000; 2000WO-US09312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200061753-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          breast cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human breast tumour-specific cDNA SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-MAR-2000; 2000US-0534825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-OCT-2000
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 25
                              11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     breast tumour-specific antigen;
cancer; B18Ag1; B11Ag1; B15Ag1;
                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG
                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Smith JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0429755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9905-0289198
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                                                                             24.18;
75.98;
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                                                                 0;
                                                                                                                              C; 126 G; 118 T; 1 other;
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                                                                              Score 33.8;
Pred. No. 0
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                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misher LE,
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                                                                                DB 21;
.077;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Retter MW,
                                                                                              Length 484;
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Sequence Sequence Sequence

186 449 449 322 322 327 327

Sequence Sequence Sequence Sequence Sequence

Sequence Sequence Sequence Sequence Sequence

Sequence Sequence Sequence Sequence

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Total number of hits satisfying chosen parameters:
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB seq length: 0
DB seq length: 2000000000

    nucleic search, using sw model

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Gapop 10.0 , Gapext 1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
   Issued_Patents_NA: *
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Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version
Copyright (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/Packfiles1.seq:*
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   2064
2121
484
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484
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163
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Compugen Ltd
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App

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185, Appl

187, Ap
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3, Appli
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US-08-861-774E-83/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 83
LENGTH: 1222
TYPE: DNA
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            GENERAL INFORMATION:

APPLICANT: BOUSTEIN, David A.

APPLICANT: Cohen, Robert

APPLICANT: Goddard, Audrey

APPLICANT: Gurney, Austin L.

APPLICANT: Hillan, Kenneth J.

APPLICANT: Lawrence, David A.

APPLICANT: Levine, Arnold J.

APPLICANT: Pennica, Diane

APPLICANT: Roy, Margaret Ann

APPLICANT: Wood, William I.

TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 83, Application US/08861774E Patent No. 6297007 GENERAL INFORMATION:
                                                                                                                                                                                               Sequence 51, Application US/09182145B Patent No. 6387657
                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: HO, YAP
APPLICANT: Tong, Seow
APPLICANT: Tong, Seow
TITLE OF INVENTION: METHOD FOR ISOLATION OF BIOSYNTHESIS GENES
TITLE OF INVENTION: BIOACTIVE MOLECULES
FILE REPERENCE: 993-006
CURRENT APPLICATION NUMBER: US/08/861,774E
CURRENT FILING DATE: 197-05-22
NUMBER OF SEQ ID NOS: 94
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Waters, Barbara APPLICANT: Miao, Vivian
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                  Local Similarity
mes 37; Conserv
   REFERENCE: P1176R2
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92.5%;
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US-09-598-326-186
US-09-598-326-186
US-08-986-6598-15
US-08-986-6598-15
US-08-757-653-49
US-08-757-653-32
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                            of Artificial Sequence: Clone
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No. 0
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30.8 30.8 30.8 30.4 30.4 30.4 30.4 30.4

Minimum Maximum

Database

Title: Perfect score:

OM nucleic

Scoring table: Sequence:

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CURRENT APPLICATION NUMBER: US/09/182,145B
CURRENT FILING DATE: 1998-10-29
EARLIER APPLICATION NUMBER: US 60/063,704
EARLIER FILING DATE: 1997-10-29
EARLIER APPLICATION NUMBER: US 60/073,612
EARLIER APPLICATION NUMBER: US 60/073,612
EARLIER APPLICATION NUMBER: US 60/081,695
EARLIER FILING DATE: 1998-04-14
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US-09-178-109-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: human
US-09-178-109-3
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APPLICANT: Cockett, Mark I.
APPLICANT: bilks, Daniel W.
APPLICANT: Chang Ling, Huai-Ping
APPLICANT: Sokol, Patricia T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No. 6387657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 156
SEQ ID NO 51
LENGTH: 163
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/09178109 Patent No. 6395477
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                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                       Sequence 1, Application US/09178109 Patent No. 6395477
                                                                                                                                                                                                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Human Potassium Channel Polynucleotides and TITLE OF INVENTION: Polypeptides and Uses Therefor FILE REFERENCE: ahp-98089
                  APPLICANT: Cockett, Mark I.

APPLICANT: Dilks, Daniel W.

APPLICANT: Chang Ling, Huai-Ping
APPLICANT: Sokol, Patricia T.

TITLE OF INVENTION: Human Potassium Channel Polynucleotides and
TITLE OF INVENTION: Polypeptides and Uses Therefor
FILE REFERENCE: ahp-98089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/178,109
CURRENT FILING DATE: 1998-10-23
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ORGANISM: Artificial sequence
CURRENT APPLICATION NUMBER: US/09/178,109
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                                                                                                                                                                                                                                                                                          41 GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG 79
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88.1%;
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Pred. No. 0.0038;
0; Mismatches
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Pred. No. 0.009;
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; ORGANISM: human
US-09-178-109-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-991-789A-175
Sequence 175, Application US/08991789A
Patent No. 6225054
GENERAL INFORMATION:
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               RESULT 6
US-09-062-451-175
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Best Local Similarity
Matches 37; Conserv
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Sequence 175,
                                                                                                                                                                                 Query Match
                                                                                                                                                   Matches
                                                                                                                                                                   Best Local Similarity
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                                                                                                                                                                                                                                                                                                                    TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 175: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 210121.419C3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Frudakis, Tony N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2072 GCATGCTCCCGGCCGCCATGGCCGGGGATTTTTACAAGACA 2031
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                                                                                                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 175:
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                                                                                ADDRESSEE: Seed IP Law Group
STREET: 701 Fifth Avenue, Suite 6300
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                     STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Potter, Jane E. R. REGISTRATION NUMBER: 33,332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/991,789A FILING DATE: 11-Dec-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: Washington
Application US/09062451
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75.9%;
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Pred. No. 0.00
0; Mismatches
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. 0.0071;
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                                                                                                                                                                                    DB 4; Length 484;
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                                                                                                                                                      Indels
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US-09-598-326-175
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. 6423496
GENERAL INFORMATION:
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Best Local :
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 484 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Frudakis, Tony N. APPLICANT: Smith, John M. APPLICANT: Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
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COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IRM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/598,326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICAM:...Smith, John M.
Smith, John M.
Reed, Steven G.
Reed, Steven G.
Reed, Steven G.
Reatment and DIAGNOSIS OF BREAST CANCER
TREATMENT AND DIAGNOSIS OF BREAST CANCER
TREATMENT AND DIAGNOSIS OF BREAST CANCER
TO SECURENCES: 247
                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed Intellectual Property Law Group PLLC STREET: 701 Fifth Avenue, Suite 6300
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 GCATGCTCCCGGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25 GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG 78
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                                                                                                                                                                                                                                                                                                                                                   STATE: Washington
                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                ZIP: 98104-7092
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75.9%;
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; SEQUENCE DESCRIPTION: SEQ ID NO: 175:
US-09-598-336-175
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                    TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 93:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                    CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/781,734
FILLING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/004,838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Procedures and Materials for TITLE OF INVENTION: Conferring Pest Resistance in Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Michelmore, Ri
APPLICANT: Shen, Kathy
APPLICANT: Meyers, Blake
                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 023070-078810US TELECOMMUNICATION INFORMATION:
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                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                    TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                    NAME: Einhorn, Gregory P
REGISTRATION NUMBER: 38,
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CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER:
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NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
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                                                                                                        LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11 GCATGCTCCCGGCCGCCATGGCCGGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: POTTER, Jane E.R. REGISTRATION NUMBER: 33,332
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            California
                                                                                                      5506 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Michelmore, Richard W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                            E: Floppy disk
IBM PC compatible
                                                    linear
                                                                                                                                                                                                                                                                                                                                                                      09-JAN-1998
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75.9%;
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0.0071;
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; LOCATION: 1..5506
; OTHER INFORMATION:
US-09-004-838-93
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            FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: Patentin version 3.0
SEQ ID NO 97
                                                                                                                   GENERAL INFORMATION:
APPLICANT: Landry, Donald
TITLE OF INVENTION: ANTI-
                                                                                                                                                                       sequence 97, Application US/09214095D
Patent No. 6280987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 156
SEQ ID NO 52
LENGTH: 163
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                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No. 6387657
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth J.
APPLICANT: Lawrence, David A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME FILE REFERENCE: P1176R2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: misc_feature
LOCATION: 1-163
OTHER INFORMATION: Sequence is synthesized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
LENGTH: 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
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                                                                                                                                                                                                                                                                                                                                            l Similarity
35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pennica, Diane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Levine, Arnold J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cohen, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Botstein, David A.
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                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                   ANTI-COCAINE CATALYTIC ANTIBODY
                                                                                                                                                                                                                                                                                                                                                             23.3%;
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                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 163;
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                                                                                                                                                                                                                                                                                                                                              Indels
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US-09-214-095D-111
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SEQ ID NO 111
LENGTH: 420
TYPE: DNA
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Murine
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les 31; Conser
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NAME: Potter, Jane E. R.
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Sequence 111, Application US/09214095D Patent NO. 6280987
GENERAL INFORMATION:
APPLICANT: Landry, Donald
TITLE OF INVENTION: ANTI-COCAINE CA
FILE REFERENCE: 51400-A-PCT-US
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 185, Application US/08991789A Patent No. 6225054 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANTI-COCAINE CATALYTIC ANTIBODY
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
SOFTWARE: Patent "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
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             APPLICATION NUMBER: US/08/991,789A FILING DATE: 11-Dec-1997 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                   CITY: Seattle
STATE: Washington
                                                                                                                                                                                    COUNTRY: USA
ZIP: 98104-7092
                                                                                                                                                                                                                                                                          ADDRESSEE: Seed IP Law Group
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                       701 Fifth Avenue, Suite 6300
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                                                                                                                                                                                                                                                                                                                                                                    Steven G.
                                                                                                                                                                                                                                                                                                                                                                                      John M
                                                                                                                                                                                                                                                                                                                               TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 31; DB 4; Length 420; pred. No. 0.067;
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GENERAL INFORMATION:
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                                                                                                                                                                                                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 597 base pairs
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INFORMATION FOR SEQ ID NO: 185:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Maki, David J.
REGISTRACION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: TREATMENT AND DIAGNOSIS OF BREAST CANCER NUMBER OF SEQUENCES: 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 0...
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                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/062,451
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                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                         Local Similarity
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   12 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 42
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                                                                11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
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STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCATGCTCCCGGCCGCCCATGGCCGCGGGATT 42
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REFERENCE/DOCKET NUMBER: 210121.419C3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6300 Columbia Center, 701 Fifth Avenue
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                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Frudakis,
                                                                                                                                                                                                                                                                                                             linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-APR-1997
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                                                                                                                                                                     22.1%;
100.0%;
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 Mismatches

                                                                                                                                                                     Score 31; DB 4; Length 597; Pred. No. 0.073;
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Patent No. 6423496
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
US-08-991-789A-167
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                                                                                                                                                                                                                                                                                                                                       Sequence 167, Application US/08991789A Patent No. 6225054 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 185:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 100.0%; Pes 31; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: POTLET, Jane E.R.
REGISTRATION NUMBER: 33,332
REFERENCE/DOCKET NUMBER: 210121.419D1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 24 CORRESPONDENCE ADDRESS:
                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                           Smith, John M.

Reed, Steven G.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEQ ID NO: 185:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Frudakis, Tony N
                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                      APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/598,326 FILING DATE: 20-Jun-2000 CLASSIFICATION: <Unknown>
                                                              CITY: Seattle
STATE: Washington
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 701 Fifth Avenue, Suite 6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 98104-7092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
MEDIUM TYPE: Floppy disk
                                                                                                                            ADDRESSEE: Seed IP Law Group
STREET: 701 Fifth Avenue, Suite 6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 597 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Reed,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seed Intellectual Property Law Group PLLC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22.1%; Score 31; DB 4; Length 597; 100.0%; Pred. No. 0.073;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                                            TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                        292
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 2000000000
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140
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   Published_Applications_NA: *
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Copyright (c) 1993 - 2003 Compugen Ltd.
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/cgn2_6/ptodata/2/pubpna/US08_BUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_EUBCOMB.seq:*
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/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US0_PUBCOMB.seq:*
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/cgn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
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10 US-09-772-134B-82

9 US-99-894-916-6

10 US-09-778-320-250

10 US-09-910-689-250

10 US-09-910-742-250

10 US-09-940-727B-97

9 US-09-940-727B-111
                                                                                                                                                                                                              US-10-112-267-51
US-10-098-841-2
US-11-112-267-51
2 US-10-062-879-1
2 US-10-062-879-1
                                                                                                                US-09-772-134B-80
US-10-112-267-52
US-10-043-875-841
                                                                                                                                                                US-09-924-400-175
US-09-810-936-175
US-09-429-755-175
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                            Sequence 2, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 1, Appli
Sequence 175, App
Sequence 175, App
Sequence 175, App
Sequence 80, Appli
Sequence 81, Appli
Sequence 81, Appli
Sequence 82, Appli
Sequence 250, App
Sequence 250, App
Sequence 250, App
                                                                                                                                                                                                                                                                                                                                  Description
 Sequence 97, Sequence 111,
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Database

Minimum DB Maximum DB

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45	44	43	42	41	40	39	38	37	36	35	34	$\frac{\omega}{\omega}$	32	31	30	29	28	27	26	25	24	23	22	21	20	
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9	9	9	9	9	9												10		10	9	9	10	10	9	10	
US-10-010-940-473	-895-814-4	-793-	US-10-012-896-473	5-001A-	5-001A-2	-10-055-001A-	'n	US-10-055-001A-25	9	US-09-429-755-182	US-09-810-936-182	-400-18	1	US-09-810-936-180	US-09-924-400-180	US-09-429-755-167	US-09-810-936-167	US-09-924-400-167	US-09-835-996A-38	US-09-298-523B-74	₽,	US-09-429-755-185	US-09-810-936-185	US-09-924-400-185	US-09-728-952-25	
`	Sequence 473, App	Sequence 473, App	•	Sequence 13, Appl		Sequence 26, Appl	•	Sequence 25, Appl	γ	182,	•	*	`	Sequence 180, App	Sequence 180, App	Sequence 167, App	•	Sequence 167, App	ω,	Sequence 74, Appl	Sequence 73, Appl	Sequence 185, App	Sequence 185, App	Sequence 185, App	Sequence 25, Appl	

Sequence: Title: Perfect score:

Scoring table:

Run on: OM nucleic -

ALIGNMENTS

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PRIOR APPLICATION NUMBER: 09/552,317
PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEO ID NOS: 331
SOFTWARE: pt_Ft_genes Version 1.0
SEO ID NO 1
NAME/KEY: CDS
LOCATION: (261)..(1052)
-10-098-841-1
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                         APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20020197679Alel Nucleic Acids and
TITLE OF INVENTION: No. US20020197679Alel Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784CIP2
CUURRENT APPLICATION NUMBER: US/10/098,841
CUURRENT FILING DATE: 2002-03-13
PRIOR APPLICATION NUMBER: 09/598,042
PRIOR APPLICATION NUMBER: 09/598,042
PRIOR FILING DATE: 2000-06-20
PRIOR FILING DATE: 2000-06-20
PRIOR FILING DATE: 2000-06-20
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APPLICANT: Liu, Chenghua
APPLICANT: Asundi, Vinod
                                                                                                      LENGTH: 16
TYPE: DNA
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                                                                                    ORGANISM: Homo sapiens
                                                                 FEATURE:
                                                                                                                               1630
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Zhang, Jie
Qian, Xiaohong B.
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Chen, Rui-hong
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Zhao, Qing A.
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Zhou, Ping
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Wang, Zhiwei
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Result

No.

Score

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33.8 33.8 33.8 33.2 31.4 31.4 31.4

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US-09-924-256A-83/c
; Sequence 83, Application US/09924256A
; Patent No. US20020127659A1
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Best Local S
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APPLICANT:
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TITLE OF INVENTION: METHOD FOR ISOLATION OF BIOSYNTHESIS GENES FOR
TITLE OF INVENTION: BIOACTIVE MOLECULES
FILE REFERENCE: 9993-006
CURRENT APPLICATION NUMBER: US/09/924,256A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: 08/861,774
PRIOR FILING DATE: 2001-04-13
NUMBER OF SEQ ID NOS: 94
                                                                                                                                                                                                        APPLICANT: APPLICANT:
FILE REFERENCE: 784CIP2
CURRENT APPLICATION NUMBER: US/10/098,841
CURRENT FILING DATE: 2002-03-13
PRIOR APPLICATION NUMBER: 09/598,042
PRIOR FILING DATE: 2000-06-20
                                                                        APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20020197679Alel Nucleic Acids and
TITLE OF INVENTION: Polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 GCATGCTCCCGGCCCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTT 63
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Zhang, Jie
Qian, Xiaohong B.
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Chen, Rui-hong
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79.2%;
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Pred. No. 0.
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                                                                                                                                                                                                                                                                                      SEQ ID NO 51
LENGTH: 163
TYPE: DNA
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; NAME/KEY: CDS
; LOCATION: (22)..(1848)
US-10-098-841-2
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                                                                            Query Match
Best Local Similarity
Matches 36; Conser
                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/182,145B PRIOR FILING DATE: EARLIER FILING DATE: 1998-10-29 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/063,704 PRIOR FILING DATE: EARLIER FILING DATE: 1997-10-29 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/073,612 PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-04 PRIOR PRIOR EARLIER FILING DATE: 1998-02-04 PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-14 NUMBER OF SEQ ID NOS: 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Botstein, APPLICANT: Cohen, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 09/552,317
PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/112,267
CURRENT FILING DATE: 2002-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 331
                                                                                                                                                                          OTHER INFORMATION: Sequence is synthesized
                                                                                                                                                                                               NAME/KEY: misc_feature
LOCATION: 1-163
                                                                                                                                                                                                                                                       ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24.6%;
Local Similarity 86.4%;
es 38; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION:
                   11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAAC 54
GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gurney, Austin L.
Hillan, Kenneth J.
Lawrence, David A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Roy, Margaret Ann Wood, William I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Goddard,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/10112267 No. US20030068678A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Levine, Arnold J. Pennica, Diane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cohen, Robert
                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               David A.
                                                                                               24.4%;
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                                                                                               Score 34.2; DB 9
Pred. No. 0.0063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 34.4; DB Pred. No. 0.01;
                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 9;
                                                                                                                   DB 9; Length 163;
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                                                                              Indels
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GENERAL INFORMATION:

ce 3, Application US/10062879 No. US20020127649A1

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RESULT 7
US-09-924-400-175
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                                                                         GENERAL INFORMATION:
                                                                                       Sequence 175, Application US/09924400 Patent No. US20020165371A1
     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/10062879 Patent No. US20020127649A1
                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Human Potassium Channel Polynucleotides and TITLE OF INVENTION: Polypeptides and Uses Therefor FILE REFERENCE: ahp-98089
CURRENT APPLICATION NUMBER: US/10/062,879
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: US/09/178,109
PRIOR FILING DATE: 1998-10-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                     APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Cockett, Mark I.
APPLICANT: Dilks, Daniel W
APPLICANT: Chang Ling, Hua
APPLICANT: Sokol, Patricia
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NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/062,879 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Human Potassium Channel Polynucleotides and TITLE OF INVENTION: Polypeptides and Uses Therefor FILE REFERENCE: ahp-98089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Cockett, Mark I.
APPLICANT: Dilks, Daniel W.
APPLICANT: Chang Ling, Huai Ping
APPLICANT: Sokol, Patricia T.
                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US/09/178,109
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TYPE: DNA
ORGANISM: human
                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2121
                                                                                                                                                                                                                                                              Local Similarity es 37; Conserv
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                                                                                                                                                                                      2072 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGACA 203:
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                                                                                                                                                                                                            11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCA 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chang Ling, Huai-Ping Sokol, Patricia T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dilks, Daniel W
Smith, John M.
Misher, Lynda E.
                                   Reed, Steven G.
                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                           24.3%;
88.1%;
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Pred. No. 0.013;
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Pred. No. 0.013;
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                                                                                                                                                                                                                                                                                           Length 2121;
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; OTHER INFORMATION: n = A,T,C
US-09-810-936-175
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 175
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CURRENT FILING DATE: 2001-08-07
NUMBER OF SEQ ID NOS: 340
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 175
LENGTH: 484
                                                                       Matches
                                                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 175, Application US/09810936
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                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: THERAPY AND DIAGNOSIS OF BREAST CANCER FILE REFERENCE: 210121.419C11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Frudakis, Tony N. APPLICANT: Reed, Steven G. APPLICANT: Smith, John M. APPLICANT: Misher, Linda E. APPLICANT: Dillon, Davin G.
                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/810,936
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                                                                                                                                                                            FEATURE: misc_feature
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                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
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                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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        25
                                 11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25 GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG
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Day, Craig H.
Li, Samuel X.
Deng, Ta
                                                                                                                                                                                                                                                                                                                                                                                             Harlocker, Susan L.
Day, Craig H.
                                                                                                                                                                                                                                                                                                                                                                                                                             Wang, Aijun
Skeiky, Yasir A.W.
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Harlocker, Susan L.
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                                                                   Conservative
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75.9%;
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                                                                                   24.1%;
75.9%;
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                                                                   Score 33.8; DB
Pred. No. 0.011;
0; Mismatches
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                                                                                                  DB 10;
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                                                                   Indels
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                                                                  Gaps
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GCATGCTCCCGGCCGCCATGGCCGCGGGATTGGCTTAA

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                                                                                                                       US-09-772-134B-80
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                                                                                                                                                                                                                                           SEQ ID NO 80
LENGTH: 711
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 80, Application US/09772134B Patent No. US20020144310A1
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Best Local
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                                                    Matches
                                                                    Best
                                                                                 Query Match
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CURRENT FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 315
                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI UNDERLITITE OF INVENTION: RESISTANCE TO SOYBBAN CYST NEMATODE AND SOYBBAN SUDDEN DEATH SYN TITLE OF INVENTION: METHODS EMPLOYING SAME FILE REFERENCE: 1268/4/2
CURRENT APPLICATION NUMBER: US/09/772,134B
CURRENT FILING DATE: 2001-01-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Southern Illinois University
APPLICANT: Lightfoot, David
APPLICANT: Meksem, Khalid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: TREATMENT AND DIAGNOSIS OF BREAST CANCER FILE REFERENCE: 210121.419C6
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                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/178,811 PRIOR FILING DATE: 2000-01-28 NUMBER OF SEQ ID NOS: 122
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                                                                                                                                                                                                                                                                                 SOFTWARE:
                                                                                                                                     NAME/KEY: misc_feature
LOCATION: (1)..(711)
OTHER INFORMATION: n is an undetermined nucleotide (dATP, dCTP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc_feature LOCATION: (1)...(484)
                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                          ORGANISM: soybean
                                                                                                                                                                                                                            TYPE: DNA
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                                                                  Local
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                  11 GCATGCTCCCGGCCGCCATGGCCGGGGATTGTCATGA 48
                                                                  Similarity
                                                                                                                                                                                                                                                                                 PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGGTGATGCCTCCTCAGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FastSEQ for Windows Version 3.0
Smith, John M.
Reed, Steven G.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misher, Lynda
Retter, Marc W.
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                                                    Conservative
                                                                  23.7%; 92.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.1%;
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                                                  Score 33.2; DB Pred. No. 0.02; 0; Mismatches
                                                                                      DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 10;
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                                                                                 Length 711;
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                                                    Indels
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                                                                                                                                         dGTP,
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                                                                                                                                         or dTTP)
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   LENGTH: 60
TYPE: DNA
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RESULT 12
US-10-043-875-841/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 52
LENGTH: 163
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 841, Application US/10043875
Publication No. US20030054339A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Publication No
                      SEQ ID NO 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                     TITLE OF INVENTION: Method for Detection of Drug-Induced Mutations in the HIV Revering of Invention: Transcriptase Gene FILE REFERENCE: 11362-0033-NPUSOI (INNS:033) CURRENT APPLICATION NUMBER: US/10/043,875 CURRENT FILING DATE: 2002-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/182,145E PRIOR TLING DATE: EARLIER FILING DATE: 1998-10-29 PRIOR ETILING DATE: EARLIER APPLICATION NUMBER: US 60/063,704 PRIOR FILING DATE: EARLIER FILING DATE: 1997-10-29 PRIOR FILING DATE: EARLIER APPLICATION NUMBER: US 60/073,612 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/073,612 PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-04 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/081,695 PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/081,695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/112,267
CURRENT FILING DATE: 2002-03-27
                                                                                                                                          PRIOR APPLICATION NUMBER: 60/286,102
PRIOR FILING DATE: 2001-04-24
PRIOR APPLICATION NUMBER: EP 0187008:
PRIOR FILING DATE: 2001-04-20
                                                                                                                                                                                                                                                                                                                                                                APPLICANT: De Smet, Koenraad APPLICANT: Stuyver, Lieven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: WOOD, WILLIAM I.
TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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                                          NUMBER OF SEQ ID NOS: 884
SOFTWARE: PatentIn version 3.1
                                                                                             PRIOR APPLICATION NUMBER: EP 01870005.4 PRIOR FILING DATE: 2001-01-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: P1176R2
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LOCATION: 1-163
OTHER INFORMATION: Sequence is synthesized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 123 GCATGCTCCCGGCCGCCATGGCCGCGGGATAATCACTAG
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669
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Hillan, Kenneth J.
Lawrence, David A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/10112267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goddard, Audrey
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cohen, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pennica, Diane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Levine, Arnold J.
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89.7%;
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; TYPE: DNA ; ORGANISM: Simulium vittatum US-09-894-916-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: \hat{n} is an undetermined nucleotide US\text{-}09\text{-}772\text{-}134\text{-}82
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Best Local Similarity
"hehes 32; Conserv?
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                                                                                                                            APPLICANT: Hinter, Fiona F.
APPLICANT: Bidochka, Michael J.
TITLE OF INVENTION: Isolated Cocoon Silk Protein From Simulium Vittatum And Nucleic TITLE OF INVENTION: Encoding Such Protein
FILE REFERENCE: 1468-001A
CURRENT FILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: 60/214992
PRIOR APPLICATION NUMBER: 60/214992
PRIOR APPLICATION NUMBER: 60/214992
PRIOR APPLICATION NUMBER: 60/214992
NUMBER OF SEQ ID NOS: 7
COMMENCE SEQ ID NOS: 7
COMMENCE DATE: 2000-06-29
NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                    Sequence 6, Application US/09894916 Publication No. US20030032089A1 GENERAL INFORMATION:
                                                                                                                  SEQ ID NO 6
LENGTH: 831
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Matches
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CURRENT FILING DATE: 2001-01-29
PRIOR APPLICATION NUMBER: 60/178,811
PRIOR FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 122
SOFTWARE: Patentin version 3.0
SEQ ID NO 82
LENGTH: 713
Query Match
Best Local Similarity
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APPLICANT: Lightfoot, David
APPLICANT: Lightfoot, David
APPLICANT: Meksem, Khalid
TITLE OF INVENTION: ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI UNDERL
TITLE OF INVENTION: RESISTANCE TO SOYBBAN CYST NEMATODE AND SOYBBAN SUDDEN DEATH SYN
FILE REFERENCE: 1268/4/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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TYPE: DNA
ORGANISM: soybean
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NAME/KEY: misc_feature

LOCATION: (1)..(713)
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97.0%;
  22.4%;
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97.0%;
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Pred. No. 0.093;
0; Mismatches 1;
  Score 31.4; DB 9; Pred. No. 0.096;
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Pred. No. 0.092;
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                  Length 831;
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; FEATURE:

NAME/KEY: misc_feature
; LOCATION: (1)...(215)
; OTHER INFORMATION: n=A,T,C or G
US-09-778-320-250
Search completed: May 25, Job time: 45.2464 secs
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SOFTWARE: FastSEQ for
SEQ ID NO 250
LENGTH: 215
                                                                                                                             Query Match
Best Local :
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                             APPLICANT: Wang, TongTong
APPLICANT: MCNeill, Patricia D.
APPLICANT: MCNeill, Patricia D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF BREAST CANCER
FILE REFERENCE: 210121.491C5
CURRENT APPLICATION NUMBER: US/09/778,320
CURRENT FILING DATE: 2001-02-06
                                                                                                                                                                                                                                                          LENGTH: 21
TYPE: DNA
                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                               Local Similarity hes 31; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION:
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                                                      GCATGCTCCCGGCCGCCATGGCCGCGGGATT 50
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Mitcham, Jennifer
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jiang, Yuqiu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dillon, Davin C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/09778320
                                                                                                               Conservative
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                                                                                                                           22.1%;
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            2003, 20:21:58
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Pred. No.
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BI262739 EST003 Su BI262738 EST002 Su BI262743 EST008 Su BI262743 EST003 -A2-

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Result
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Maximum DB seq
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Osanya, A., Pelle, R. and Murphy, N.B.
Identification and characterisation of differentially expressed genes of Trypanosoma brucei brucei
Unpublished (1997)
                                                                                                                                                                                                                                                                                     521 bp mRNA linear EST 14-MAR
T3598 Bloodstream form of serodeme ILTatl.1 Trypanosoma brucei
brucei cDNA 5', mRNA sequence.
                                                                         International Livestock Research Institute
Box 30709, Nairobi, Kenya
Tel: 254 2 630 743
Fax: 254 2 631 499
                                                                                                                                                                                                                                       Trypanosoma brucei brucei.
Trypanosoma brucei brucei
                                                                                                                                      Contact: Osanya A
                                                                                                                                                                                                                                                                AA255342.1 GI:1889945
EST.
                                                                                                                          Unit 3
                                                                                                                                                                                                              Trypanosoma
                                                                                                                                                                                                                          Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
                                               i1: a.osanya@cgnet.com
primer: M13 primer.
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                       Location/Qualifiers
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/organism="Trypanosoma brucei brucei"
/strain="Clone A4"
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BI203089
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AQ110909 CIT-HSP-2

BO094068 040802_27
AQ015890 CIT-HSP-2
BP018827 BP018827
BP018827 BP018827
AR1133472 HA2082 Hu
AB021948 AB021948
B16177 347C21.TP C
B38957 HS-1048-B2-AA012772 RP02008CC
AI738079 ESTRGT09
AB029050 AB029050
AW888331 E45 Rat d
AI738079 ESTRGT09
BM139628 Gm-35-10H
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B1203157 PC89r Pea
AA585075 T3645 Bl0
AA585075 T3645 Bl0
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AA585077 T3645 Bl0
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AF092132 Homo sapi
AA052864 T3541 Bl0
AT006477 AT006477
BE411794 ISC009 D0
BM355493 GA_Ea002
AI728509 BNLGH1109
BG443394 GA_Ea002
AI728966 BNLGH1121

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 58
                                11
                                                                   34;
                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (1999)
Contact: Ma MZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ma, Z.M., Yang, Y., Xie, Y.Z. and Fan, M. The DD-PCR studies of the candidate genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus
Eukaryota; Metazoa;
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Institute of Basic Medical Sciences
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/Clone_lib="Bloodstream form of serodeme ILTatl.1"
/note="cDNAs were generated from poly (A+) enriched mRNA
prepared from different developmental stages of T b.brucei
by reverse transcription followed by PCR amplification
using mini-exon and oligo(dT) primers. The cDNA generated
were utilized in RADES-PCR coupled with differential
hybridisations to identify differentially expressed mRNA
transcripts. The products which showed to be
                                                                                                                                                              oligo. Individual clone was sequenced with primer."
                                                                                                                                                                                               /clone_lib="Rattus norvegicus library (Ma MZ)"
/note="Organ: brain; Vector: pGEM-T; with treatent by
endostatin, the differential expressed cDNAs were cloned
into the pGEM-T vector. The 3'anchor primer is
AAGCTTTTTTTTTTTT, and the 5'arbitrary primer is 10-mer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               being) sequenced to generate differentially expressed sequence tags."
140 c 117 g 113 t
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                                                                                                                                                                                                                                                                                                   /organism="Rattus norvegicus"
/db_xref="taxon:10116"
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Rodentia;
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Pred. No. 16;
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45 w. Gude Dr., 1
Tel: 2404533151
Fax: 2404534580
                                                                                                                                                                                                                                                                                              72 CCCCAACAAGCTTCATGCATATGGAGTATG 101
                                                                                                                                                                                                                                                                                                                                                  BM579445
686 bp mRNA linear EST 22-FEB-2
17000687238519 A.Gam.ad.cDNA.bloodl Anopheles gambiae cDNA clone
19600449682280 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                    54;
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Contact: Holt R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Holt,R.A., Lin,J.-J., Murphy,S.D., R., Collins,F.H., Venter,J.C. and
                                                                                                                    H1273615 733 k
Al241_le Aplysia metacerebral
cDNA 5', mRNA sequence.
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Seq primer: M13 Reverse.
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Eukaryota; Metazoa; Mollusca; Gastropoda; Opisthobranchia; Anaspidea; Aplysiidae; Aplysia.
1 (bases 1 to 733)
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                                                  Aplysia californica
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                                                                      California sea hare.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Vector: pSport1; Site_1: Sal1; Site_2: Not1: Whole adult mosquitoes (mixed sex) frozen on liquid nitrogen 2 hours after human blood feeding. cDNA inserts >500 bp cloned directionally into pSport 1. Not 1 site is 3'. Clones available through the Malaria Research and Reference Reagent Resource Center (www.malaria.mr4.org)" a 157 c 199 g 189 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /dev_stage="Adult"
/lab_host="DH10b"
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/strain="RSP-ST (Reduced susc
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University of Florida
9505 Ocean Shore Blvd., St Augustine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (2001)
Contact: Sadreyev RI
                                                                                                                                                                                                                                                                              Contact: Mark Adams
Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AQ058015 431 bp DNA linear GSS 30-JUL-1998 CIT-HSP-2342C13.TF CIT-HSP Homo sapiens genomic clone 2342C13, DNA
                                                                                                                                        http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
Seq primer: m13-21
Class: BAC ends.
                                                                                                                                                                                              end search page:
                                                                                                                                                                                                            Clones are available from Research Genetics (info@resgen.com).
                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1998)
                                                                                                                                                                                                                                                                                                                                                                                                           Use of a random BAC End Sequence Database for Sequence-Ready Map
                                                                                                                                                                                                                                                                                                                                                                                                                          Adams,M.D., Rounsley,S.D., Zhao,S., Field,C.E., Bass,S., Linhe Golden,K., Berry,K., Granger,D., Suh,E., Wible,C., Shizuya,H., Simon,M. and Venter,J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 431)
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Seq primer: 5' CGACGTGGACTATCCATGAACGCA 3'
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                                                                                                                                                                                                                                Email: mdadams@tigr.org
                                                                                                                                                                                                                                                                                                                                                        Other_GSSs: CIT-HSP-2342Cl3.TR
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/tissue_type="nervous system"
/cell_type="Metacerebral cell"
/note="Vector: pGEM-T"
/ 205 c 147 g 184 t
                                                      /db_xref="taxon:9606"
/clone="2342C13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Aplysia californica"
/db_xref="taxon:6500"
                                                                                     /organism="Homo sapiens"
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/cell_type="Sperm"
                                     /clone_lib="CIT-HSP"
                                                                                                                       Location/Qualifiers
                      /sex="Male"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0115 row: K column: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AZ366183 512 bp DNA linear GSS 02-OCT-200 1M0115K24F Mouse 10kb plasmid UUGCIM library Mus musculus genomic clone UUGCIM0115K24 F, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seq primer: CGTTGTAAAACGACGGCCAGTClass: plasmid ends
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse whole genome scaffolding with paired end reads from 10kb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 512)
Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AZ366183.1 GI:10479883
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,
,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nouse mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            308,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  801 585 5606
801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
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HindIII"
                                              (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4
                                                                                                                                                                         /lab_host="E. Coli strain XL10-Gold, T1-resistant, F
/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biomedical Polymers Research Bldg.,
                        polynucleotide kinase. Adaptor oligonucleotides were
                                                                                                                                                                                                                                                                                                      /db_xref="taxon:10090"
/clone="UUGC1M0115K24"
                                                                                                                                                                                                                                                                                                                                                          /organism="Mus musculus"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
  ligated to the blunt ends in high
                                                                                                                                                   Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                              /clone_lib="Mouse 10kb plasmid UUGC1M library"
                                                                                                                                                                                                                                                        /sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 c
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56.7%;
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Pred. No. 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Std Error: 0.00
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molar excess.
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                                                                                                                                                                              Jackson
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BASE COUNT
ORIGIN
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BI262739/c
                                                                                                                                                                                     BASE COUNT
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                                                                                Matches
                                                                                                    Query Match
Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                             source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    412 ATACACGTAGTCCCCCTCCACCTGGACCCCAGGATTATTTGGTGGGAATTAACCCCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      352 CCTGCTTCATAACTAGGTGCATGAATTAGTAAAATTGAGCTTTGATCAG 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 AGCGTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAGGGATCCG 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61;
                                      11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATG 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              559 bp mRNA linear EST 18-JUL-20, EST003 Subtracted larval fat body library, bacteria-induced genes Manduca sexta cDNA clone 3 3', mRNA sequence.
B1262739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 ATACAGCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCCAACTAAACCCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea; Sphinginae; Manduca.

1. (bases 1 to 559)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BI262739.1 GI:14863320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449 Chem/Biochem, Manhattan, Tel: 785 532 6964 Fax: 785 532 7278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Kanost M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Manduca sexta
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: kanost@ksu.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kansas State Universtiy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Department of Biochemistry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Response of the Tobacco Hornworm, Manduca Sexta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Identification of Differentially Expressed Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tobacco hornworm.
                                                                                                    Similarity
GCATGCTCCCGGCCGCCATGGCCGCGGGATTAGCGTG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                       primer: SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               157
                                                                                                                                                                                       107
                                                                                                                                                                                                                                                                                                                                                                                                                   quality sequence stop: 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -F.: Johnson, T.J.: Kanost, M.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pwD42 (gi14732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli X110-Gold (Stratagene) cells and selected for ampicillin resistance."
                                                                                                                                                                                 /clone_lib="Subtracted larval fat body library,
bacteria-induced genes"
/tissue_pe="Fat Body"
/dev_stage="5th Instar larva"
/note="Vector: pGEM-T Vector; Site_1: EcoRI; Site_2: XhoI"
a 174 c 147 g 130 t 1 others
                                                                                                                                                                                                                                                                                                              /db_xref="taxon:7130"
/clone="3"
                                                                                                                                                                                                                                                                                                                                                         /organism="Manduca sexta"
                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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                                                                                                    23.0%;
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Pred. No. 27;
                                                                                                    Score 32.2;
Pred. No. 28;
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                                                                              Mismatches
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                                                                                                                         DB 13;
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                                                                                                                      Length 559;
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                                                                                Indels
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BI262738/c
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AUTHORS
                                    COMMENT
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BI262743/c
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                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                   VERSION
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                                                                                                                                                                                                                                                                                                                                         COCUS
                                                                                     AUTHORS
TITLE
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Best Local :
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                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                             543 GCATGCTCCCGGCCGCCATGGCCGCGGGATTAGCGTG 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATG 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34;
                                                                    1 (bases I to 729)
Zhu,Y.-F.: Johnson,T.J.: Kanost,M.R.
Identification of Differentially Expressed Genes in the Immune
Response of the Tobacco Hornworm, Manduca Sexta
                                                                                                                                       Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
Sphingiodea; Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                   EST008 Subtracted larval Manduca sexta cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Response of the Tobacco Hornworm, Manduca Sexta Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 617)
Zhu,Y.-F.: Johnson,T.J.: Kanost,M.R.
Identification of Differentially Expressed Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodae; Sphingidae; Sphinginae; Manduca.

1 (bases 1 to 617)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST002 Subtracted larval Manduca sexta cDNA clone BI262738
                                                 Unpublished (2001)
                                                                                                                                                                                                                                  EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seq primer: SP6
High quality sequence stop: 493.
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                                Contact: Kanost M
                                                                                                                                                                                              Manduca sexta
                                                                                                                                                                                                                 tobacco hornworm
                                                                                                                                                                                                                                                   BI262743.1
                                                                                                                                                                                                                                                                                      mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: 785 532 6964
Fax: 785 532 7278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Department of Biochemistry Kansas State Universtry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Kanost M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tobacco hornworm.
Kansas State Universtiy
                 Department of Biochemistry
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            kanost@ksu.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bacteria-induced genes"
/tissue_type="Fat Body"
/dev_stage="5th Instar larva"
/note="Vector: pGEM-T Vector: Site_1: EcoRI; Site_2: XhoI"
123 c 98 g 205 t 2 others
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                      University of Washington
Seattle, WA 98195, USA
                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 373)
Mahairas, G.G., Zackrone, K.D., Smith, T., Tipton, S., S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens genomic clone
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373 bp DNA linear GSS 17-OCT-1997
HS-1003-A2-B01-MR.abi CIT Human Genomic Sperm Library C Homo
sapiens genomic clone Plate=CT 497 Col=2 Row=C, DNA sequence.
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Tel: 785 532 6964
Fax: 785 532 7278
                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Mahairas GG, Zackrone KD,
                                                                                                                                                                                                                                                                                                                                                                                                                                          Tagged Connectors
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(206) 685-7301
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/dev_stage="5th Instar larva"
/dev_stage="5th Instar larva"
/note="Vector: pGEM-T Vector; Site_1: EcoRI; Site_2: XhoI"
/note="Vector: pGEM-T Vector; Site_1 & others
                                                                                                          /note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in
E-Coli DH10B"
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/db_xref="taxon:7130"
                                                                                                                                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="plate=CT 497 Col=2 Row=C"
/clone_lib="CIT Human Genomic Sperm Library
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Best Local Similarity
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                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                    CIT-HSP-2314E8.TF CIT-HSP Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: yuchang910@163.com
Seg primer: M13 Forward
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Tel: 00863733328084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (2002)
Contact: Lee Yuchang
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Facilitate Gene Discovery. Genome Research 6: 791-806, 1996). The oligonucleotide used to prime first strand synthesis contained the sequence tag GGACTAGATC between the Not I cloning site and dT18 stretch. The Rat Cell Line
                                                                                                                                                                                                                                                                                                                                                                                                                                           Iowa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /strain="Sprague-Dawley"
/db_xref="taxon:10116"
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/note="Vector: pT7T3
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                                                            GI:3194626
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                source
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Use of a random BAC End Sequence Database for Sequence-Ready Map Building (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 442)
Adams, M.D., Rounsley, S.D., Zhao, S., Field, C.E., Bass, S., Linher, K.,
                                                                                                                                                                                                                                                                                                                                                  237 bp mRNA linear EST 15-MAR-2002
BP018827 Nori Satoh unpublished cDNA library, larva Ciona
intestinalis cDNA clone cilv05c06 5', mRNA sequence.
BP018827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
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Class: BAC ends
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http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
Seq primer: M13-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: mdadams@tigr.org
Clones are available from Research Genetics (info@resgen.com). BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: 301 838 0200 Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Mark Adams
                                                                                                                                                                        Satoh,N., Satou,Y., Kohara,Y. and Shin-i,T
Expressed genes in Ciona intestinalis
Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Department of Eukaryotic Genomics
                                                                                                                                                                                                                                                                                   Ciona intestinalis
                                                                  Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                        Contact: Nori Satoh
Department of Zoology
                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Phlebobranchia; Cionidae; Ciona.
                                                                                                                      Kyoto University
                                                                                                                                                                                                                                                                                                    Ciona intestinalis.
                                                                                                                                                                                                                                                                                                                                     BP018827.1 GI:19510777
                                                 Email: satoh@ascidian.zool.kyoto-u.ac.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAAGCTTCATGCATATGGAGTATGGTCTAGGGATCCGGGGTACCGAGCTCGAATTCGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATA 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="2314E8"
/clone_lib="CIT-HSP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cell_type="Sperm"
/note="Vector: pBeloBAC11; Site_1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .23/
/organism="Ciona intestinalis"
                                 Location/Qualifiers
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SOURCE
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                          VERSION
KEYWORDS
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AB021948
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Best Local Similarity
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AI133472.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Beijing Institute of Radiation Medicine
27 Taiping Road, Beijing 100850, P.R.Ch
Tel: 0086-10-68159479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 497)
                                                                    AB021948 1222 bp mRNA linear EST 07-JAN-1999 AB021948 Oryza sativa ms-bo-Taichung 65 immature anther Oryza sativa cDNA clone DD2R3-1, mRNA sequence.
                                                                                                                                                                                                                            39; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Yongtao Yu
Department of Hematology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Expression profile analysis of a human fetal liver cDNA library unpublished (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and He, F.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human.
Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fax: 0086-10-68214653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: yyt48@yahoo.com.
                               EST
                                                        AB021948
              Oryza sativa
                                          AB021948.1
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nilarity 76.5%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:7719"
/clone="cilv05c06"
/clone_lib="Nori Satch unpublished cl
/tissue_type="whole animal"
/dev_stage="larva"
/note="Vector: pBluescript SK"
a 56 c 65 g 58 t 1 of
                                                                                                                                                                                                                                                                                                /dev_stage="fetal"
/lab_host="MC1061/P3"
/note="vector: pCDNA1"
115 c 141 g
                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="Human fetal liver cDNA library"
/tissue_type="liver"
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Pred. No. 35;
0; Mismatches
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Pred. No. 2
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AUTHORS
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Search completed: May 25, 2003, 20:17:10 Job time: 491.844 secs
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Best Local Similarity 94.3%; Pred. No. 52;
Matches 33; Conservative 0; Mismatches
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                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzeae; Oryze.

1 (bases 1 to 1222)
Toriyama, K. and Ohhashi, Y.
EST of immature anther of rice
Unpublished (1999)
Contact: Toriyama K
Faculty of Agriculture, Laboratory of Plant Breeding
Tohoku University
                                                                                                                                                                                                                                                                                                                                                                                                                         Email: torikin@bios.tohoku.ac.jp.
Location/Qualifiers
1. 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tsutsumidori-Amamiyamachi 1-1, Aobaku, Sendai, Miyagi 981-8555,
                                                                                                                                                                                                                                                     297
                                                                                                                                                                                                                                       /organism="Oryza sativa"
/strain="ms-bo-Taichung 65"
/db_xref="taxon:4530"
/clone="DD2R3-1"
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/tissue_type="anther"
/dev_stage="immature anther"
/dev_stage="immature anther"
/ 298 c 291 g 335 t 1 others
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                                                                                                                                                     2,
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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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1: gb_ba:*
2: gb_htg:
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Gapop 10.0 , Gapext 1.0
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gb_htg:*
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em_htg_mus:*
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ALIGNMENTS

AUTHORS TITLE	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	HVHOR117	RESULT 1
Entwistle, J. Direct Submission	Pooideae; Triticeae; Hordeum. 1 (bases 1 to 1420)	Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;	Hordeum vulgare subsp. vulgare	Hordeum vulgare subsp. vulgare.	endosperm; seed storage protein.	X60037.1 GI:19000	X60037	H.vulgare horl-17 gene for C-hordein.	HVHOR117 1420 bp DNA linear PLN 05-MAY-1995		

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by positive and negative regulation of the GCN4 and endosperm box
Plant J. 4 (2), 343-355 (1993)
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QPPWQPQQPFPQQBQDPFPQQPQDFPQGSEQIIPQQPFPLQPQPFPQQPQQ
QPQPVPQQRPQQASPLQPQPQQASPLQPQDFPPQGSEQIIPQQPFPLQPQPPPQQPQQ
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327. .334
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109. .136
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/codon_start=1
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/product="C-hordein"
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/db_xref="GI:442524"
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NPYLPQQPFHYQQPFHTPQQYFPYLPBELSPQYQIFTPLQPQQFPQQPQQDLPRPQQ
NPYLPQQPFPYQQPFHTPQQYFPYLPBELSPQYQIFTPLQPQQFPQQPQQDLPRPQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPQGSEQIIPQQPQQPFPLQPHQPYTQQTIWSMV"
1 711 c 420 g 714 t 3 c
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1084. .2016
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85.1%;
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AF280606
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94710, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hsia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticum.
                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (20-JUN-2000) Western
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 3925)
Hsia,C.C. and Anderson,O.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
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      Triticum aestivum.
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                                                       TATCCATTGCAACAACCATTTCCTACACCCCAACAACAATTTCCCCCAGCAATCACAA
                                                                   TTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCCTATCTACCAGAGGAA
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                                                                                                                                                                                                                                                /note="in-frame stop codon" 3626. .3631
                                                                                                                                                                                                                                        3683.
                                                                                                                                                                                                                                                                           /product="omega gliadin" 3026 .3028
                                                                                                                                                                                                                                                                                                                                        /dev_stage="embryo"
2372. .2377
2477. .3550
                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:4565"
/chromosome="1"
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                                                                                                                                                         Score 231.4; DB 8; Pred. No. 1.2e-36; D; Mismatches 91;
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gliadin
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2 (base
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                                                                                                                                                                                                                                                                                                      Submitted (17-APR-1997) Plant
                                                                                                                                                                                                                                                                                                                               Clarke, B. and Appels, R.
                                                                                                                                                                                                                                                                                                                                            Plant Syst. Evol. (1
3 (bases 1 to 9248)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Secale cereale.
Secale cereale
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                                                                                                                                                                                                                                                                                                                      Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 9248)
                                                                                                                                        locus; this sequence covers multigene family" <2751. .>3825
              /codon_start=1
/product="omega secalin"
/protein_id="AAB58403.1"
/db_xref="GI:2145025"
                                                                                                                  /product="omega secalin"
<2751. .>3825
translation="MKTFLIFVLAMTMSIITTARQLNPSEQELQSPQQPVPKEQSYPQ/
                                                                                                   /note="there are
                                                                                                                                                                                          /tissue_type="endosperm"
1. .9248
                                                                                                                                                                                                                     /map="1RS"
                                                                                                                                                                                                                              /db_xref="taxon:4550"
/chromosome="1"
                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                             /function="seed storage
                                                                                                                                                                                                                                                       /organism="Secale cereale"
                                                                                                                                                                                                                                                                                          ACT 2601, Australia
                                                                             .3825
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Eukaryota; Viridiplantae; Streptophyta; Embryophyt
Spermatophyta; Magnoliophyta; Liliopsida; Poales;
Pooideae; Triticeae; Secale.
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                                                                                              /note="there are 15 omega secalin genes at the Sec-1 locus; this sequence covers one complete unit of this
secalin genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chromosome
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1 (bases 1 to 1832)

Halford.N C
                                                                Hull.G.A., Halford,N.G., Kreis,M. and Shewry,P.R. Isolation and characterisation of genes encoding rye prolamins containing a highly repetitive sequence motif plant Mol. Biol. 17 (5), 1111-1115 (1991)
                                                                                                                                                    Direct Submission
Submitted (20-SEP-1991) N.G. Halford, Long Ashton Research
University of Bristol, Dept of Agricultural Sciences, Long
Bristol BS18 9AF, UK
                                                                                                                                                                                                                                                                                                                      x60295 x60116
x60295.1 GI:21203
prolamin; repetitive sequence;
Secale cereale.
                                                                                                                                                                                                                                                                                                                                                                                     SCSEC1B
S.cereale Sec1 gene for
                                                   92032773
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACCACAACAATAATTCCCCCAGCAAACACCAACCATTTCCCCTGCAACCTCAACAA 3213
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                                                                                                                                (bases 1 to 1832)
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1. .1832
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74.4%;
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Pred. No. 1.6e-
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                                                                                                                                                                                                                                                                                                                                                                                                   DNA
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                                                                                                                                                                                                                                                                      Embryophyta; Tracheophyta; a; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                    seed
                                                                                                                                                                                                                                                                                                                                                                                                       linear
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les 327; Conserv
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535. .1548
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604 c 208 g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="mKTFLIFVLAMTMSIITTARQLNPSEQELQSPQQPVPKEQSYPQ
QPYPSHQPFPTPQQYSPYQPQQPFPQPQQPAPTQPQQPFPQQPQQPPPQPQQPLPLQP
QQPFPQPQQPIPQQPQQSFPQQPPQQPPPQQPQIIPQQPTQQPPPLQPQQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /Codon_start=1
/product="Sec! precursor"
/protein_id="CAA42837.1"
/db_xref="G1:21204"
/db_xref="SPTREMBL:005573"
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373. .378
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QPQRPQQPFPQQIIPQQPPQQPFPLQPQQPVPQQPQRPFGQQPEQIISQRPQQPFSQ
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478. .1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="Endosperm"
/clone_lib="Genomic library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:4550"
/chromosome="1R, shor
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74.1%;
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MEDLINE
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TITLE
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              124 ACACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTTCCCCCAATATCAAATACCA 183
                                                                                                                 199
                                                                                                                                                                      324;
                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hull, G.A., Halford, N.G., Kreis, M. and Shewry, P.R. Isolation and characterisation of genes encoding containing a highly repetitive sequence motif Plant Mol. Biol. 17 (5), 1111-1115 (1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (20-SEP-1991) N.G. Halford, Long Ashton Research Station, University of Bristol, Dept of Agricultural Sciences, Long Ashton, Bristol BS18 9AF, UK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Spermatophyta; Magnoliophyta; Embryophyta; Tracheophyta; Pooideae; Triticeae; Secale.

1 (bases 1 to 1342)
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x60294 x60117
                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           prolamin; repetitive
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                                                     CCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAGCAACCGTTTCAC
ACACCGCAACAATATTCCCCCTATCAACCACAGCAACCATTTCCCCCAACCCCAACAACCA
                                                                                                             AGGCAGCTAAACCCTAGCGAACAAGAGTTGCAATCACCACAACAA-
                                                                                                                       AGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAG 63
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                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                              /gene="Sec1"
199. .1212
/gene="Sec1"
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514 c 136 g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          /codon_start=1
/product="Sec1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="Endosperm"
/clone_lib="Genomic library in
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73.5%;
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                                                                                                                                                                Score 224.2;
Pred. No. 3.3e
0; Mismatches
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                                                                                                                                                                2; DB 8;
3.3e-35;
hes 93;
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TITLE
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94710, USA
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Hsia,C.C. and Anderson,O.D.
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1 (bases 1 to 3789)
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                                                                                                                                                     /product="omega gliadin storage protein"
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alcohol-soluble prolamin; hordein; seed salcohol-soluble subsp. vulgare.
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Hordeum vulgare subsp. vulgare
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POQNPOQOPFPDPOQUFPPDQOPFPDQOPFPDPOQPFPDQOPFPD
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                                                                                                                                                                                                                                                                                                                                                  /strain="Bomi"
/db_xref="taxon:112509"
/tissue_type="inunature of the control of 
                                                                                           QIITQQPFPLQPQQLFPQQPQQPLPQPQQPFRQLPKYIIPQQPQQPFLLQPHQPQQPY
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/product="C hordein'
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Triticum aes
AB059812
AB059812.1
                                                                                                                                                               Submitted (12-APR-2001) Ali Masoudi-Nejad, Kyoto University, Graduate School of Agriculture, Laboratory of Plant Genetics; Kitashirakawa oiwake-cho, Kyoto, Kyoto 606-8502, Japan (E-mail:amasoudin@hotmail.com, Tel:81-75-753-6145, Fax:81-75-753-6486)
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Genome 45, 661-669 (2002)
2 (bases 1 to 1858)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                    Molecular cloning,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Triticum aestivum
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                                                                                                                                                                                                                                                                                                             Masoudi-Nejad, A. and Nasuda, S.
                                                                                                                                                                                                                                                                                                                                                                                                                             Masoudi-Nejad, A., Nasuda, S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pooideae; Triticeae; Triticum.
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626
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aestivum pseudogene
                     /cultivar="Chinese Sp
/db_xref="taxon:4565"
/chromosome="1"
                                                                                                   /organism="Triticum aestivum"
                                                                                                                                                Location/Qualifiers
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No. 1.1e-33;
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                                                                                                                       AUTHORS
TITLE
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                                                                                                        JOURNAL
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                                                                                        Submitted (02-NOV-1999) Plant Canberra, ACT 2615, Australia
                                                                                                                       2 (bases 1 to 4971)
Murray, F.R. and Appels, R.
Direct Submission
                                                                                                                                                                                          Pooldeae; Triticeae; Secale.

1 (bases 1 to 4971)
Murray, F.R. Skerritt, J.H. and Appels, R.
A gene from the Sec2 (Gli-R2) locus of a wheat 2RS.2Bl chromosomal
                                                                                                                                                                                                                                                   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                Secale cereale secalin precursor (gsec2-1) gene, complete cds {\tt AF201084}
                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                    Secale cereale
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1, 4971
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325. .1582
/organism="Secale cereale"
/cultivar="Imperial"
/db_xref="faxon:450"
/note="rye gene isolated from a Triticum aestivum (wheat)
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/product="omega gliadin"
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                                                                                                       Industry, CSIRO, PO Box 1600
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1341 GTCCCCCAGCAATCACAACAA 1361
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                                  TTTCCTCAACAACCTCAACCA 438
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                                                                              ATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAACAGCCA 417
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/gene="gsec2-1"
a 1307 c 886 g
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/product="secalin precursor"
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SSQQSQQPYYQEPQQLFPQSQQPQQPEQPQPQQPQPPPQPQTQGG
QQPFPQSQBQFPQVHQPQQPSPQQQQPQPS1QLSLQQQLNPCKMVLLQQCSPVALVSSLR
SKIFPQSECQVMQQQCCQQLAQIPQQLQCAAIHSVVHAIIMQQEQREGVQILLPQSHQ
QHYCQGALAQVQGIIQPQQLSQLEVVRSLVLQNLPTMCNVYVPRQCSTIQAPFASIVT
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2207. .2212
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="secalin precursor"
/protein_id="AAG35598.1"
/db_xref="GI:11493665"
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/note="75 kDal secalin"
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763. .768
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Pred. No. 5.2e
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                                                                                                                                                                                                                                                                                                                                                244;
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                                                                                                                                                                                                                                                                                                                        91 CAAAAACCATTTCCAGTGCAGCAACGTTTCACACACCCCAACAATATTTCCCCCTATCTA 150
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AF175312
AF175312.1 GI:7230477
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae; Triticeae; Triticum.

1 (bases 1 to 927)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Production of a panel of recombinant gliadins for the characterization of T cell reactivity in coeliac disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arentz-Hansen, E.H., McAdam, S.N., Molberg, O.,
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                                     CAACCATTCCCCCAGACTCAACAACCCCCAACAACCATTTCCCCCAGCTCCAGCAACCA 375
                                                             CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC 384
                                                                                                                                         CCACAACAACCATTCCCCCAGACTCAACAACCA---
                                                                                                                                                                   CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCTGGCAA 324
                                                                                                                                                                                            CCCCAGCCTCAGCAACCACAACAACCATTTCTCCAGCCCCAACAACCATTCCCCCCAACAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            QLNPCKNILLQQCKPASLVSSLWSIIWPQSDCQVMRQQCCQQLAQIPQQLQCAAIHSVVHSIIMQQQQDQQQQGMHIFLPLSQQQQVGQGSLVQGQGIIQPQQPAQLEAIRSLVLQTLESMCNVYPPECSIMRAPPASIVAGIGGQ"

342 c 125 g 161 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Triticum aestivum"
/strain="Yamhill"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
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                                                                                                                                         -CAACAACCATTTCCCCAGCAA
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Best Local Similarity
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Anderson,O.D., Hsia,
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The wheat gamma-gliadin genes: characterization of ten new sequences and further understanding of gamma-gliadin gene family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 1178)
Anderson, O.D., Hsia, C. and Torres, V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (15-FEB-2000) Agricultural Research Service, U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  structure
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pooideae;
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                                                 CAACAAT---CATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCA 438
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                                                                                                   CCACAACAACCATTTCCCCCAGACTCAACAACCCCAACAACCATTTCCCCCAACAACCACAA 413
                                                                                                                                                        CCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC
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3 395 c 178 g 219 t
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/product="gamma-gliadin"
/product="gamma-gliadin"
/protein_id="AAR84779.1"
/db_xref="gI:15148398"
/db_xref="GI:15148398"
/translation="MKTLLITILAMAITIGTANIQVDPSGQVQWLQQQLLVPQLQQPL
SQQPQQTFPQPQQTFPQPQQPEPQQPQPPPQQPQQPFPQTQQPQQPFPQTQQPQQPFPQTQQPQQPFPQTQQPQQLPPQQQ
PQQQPGQPFQQQPEPQQPEPQCPPQPPQQPPPQTQDPQQLPPQQQ
PQQSFPQQQRPFTQPSLQQQLNPCKNILLQQCKPASLVSSLWSIIWPQSDCQVWRQQC
CQQLAQIPQQLCAAIISVVHSIIWQQQQQQQQQQQMIIFLDSQQQVGQGSLVQGC
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gliadin: seed storage protein.
Wheat (T.aestivum, cv.Yamhill)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poo
Pooideae; Triticeae; Triticum.
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/protein_id="MAA34289.1"
/db_xref=n01:170738"
/db_xref=n01:170738"
/translation="MKTLLILTILAMAITIGTANIQVDPSGQVQWLQQQLVPQLQQPL
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124. .1107
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/db_xref="taxon:4565"
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The wheat gamma-gliadin genes: characterization of ten new sequences and further understanding of gamma-gliadin gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Triticum aestivum clone 07c8 gamma-gliadin mRNA, partial cds. AF234642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (15-FEB-2000) Agricultural Research Service, U Department of Agriculture, 800 Buchanan Street, Albany, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anderson, O.D., Hsia, C. and Torres, V. Direct Submission
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Triticum aestivum.

Triticum aestivum

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Egermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Pooideae; Triticeae; Triticum.

1 (bases 1 to 1227)

Anderson,O.D., Hsia,C. and Torres,V.

The wheat gamma-gliadin genes: characterization of ten new seguences and further understanding of gamma-gliadin gene family
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Triticum aestivum clone
AF234644
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Anderson,O.D., Hsia,C. and Torres,V.
Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTT
                                                                                                                                                                                                                                                                                                                                                             CACACACCCCAACAATATTTCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATA 180
                                                                                                                                                                                                                                     CCAACCCCCCTACAACCACAACCAACCAGTTCCCCCCAACAACCACACAACCACCTCTTCCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCG
                              CCCCAACAACCATTCCCCTGGCAACCACCAACAACCATTTCCCCCAGCCCCAAGAACCAATT
                                                                                     CCCCAACAACCATTCCCCTGGCAACCACCACCATTTCCCCCAGCCCCAAGAACCAATT
                                                                                                                                                                                                          CACACCCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTT
Morell M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 162 A; 186 C; 43 G; 86 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98AU-0004604
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/transl_except=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 477; DB 21;
Pred. No. 1.4e-100;
); Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  materials
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RESULT 2
AAV20700
Matches
                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibody; prophylaxis; treature detection; diagnosis; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cryptosporidium parvum GP900 antigen open reading
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV20700 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-AUG-1998
                                                          Sequence 5163
                                                                                                        a Cryptosporidium infection in humans or in animals such
They can also be used for the detection and diagnosis of
                                                                                                                                                                   The
                                                                                                                                                                                                Claim 32; Pages 60-62;
                                                                                                                                                                                                                              infections
                                                                                                                                                                                                                                          Anti-Cryptosporidium a detection, diagnosis,
                                                                                                                                                                                                                                                                                          P-PSDB;
                                                                                                                                                                                                                                                                                                        WPI; 1998-159290/14
                                                                                                                                                                                                                                                                                                                                       Gut J,
                                                                                                                                                                                                                                                                                                                                                                   (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                 14-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9806430-A1
               Local
                                                                                                                                                     the
                                                                                                                                                                 sequence
                                                                                                                                  sequence is that encoding the GP900 antigen which may be used
he production of anti-Cryptosporidium antibodies. These can be
for the prophylaxis, treatment, inhibition or retardation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                       can also be
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                                                                                                                                                                                                                                                                                            AAW48299
                                                                                                                                                                                                                                                                                                                                     Leech J, Nelson RC,
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 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       frame; ORF;
                                                            B₽;
                                                                                                                                                                                                                                                                                                                                                                                                 96US-0700651
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/product=
524..1270
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "region containing NINC mutations"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                          1875 A; 1137 C; 873 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 5163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA;
              24.9%;
                                                                                                                                                                                                                                               antibody. - used to develop products for , prophylaxis or treatment of Cryptospor
                                                                                                                                                                                                                                            prophylaxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            treatment;
                                                                                                                                                                                                89pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GP900 antiger
Score 118.8; DB 19
pred. No. 5.3e-18;
0; Mismatches 192;
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                                                             1278
                              DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            retardation;
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                                                             0 other;
                                                                                                                                                                                                                                              Cryptosporidium
   Indels
                              Length
                                                                                                          as calves.
related
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                                 5163
   0;
   Gaps
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RESULT 3
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                                                                                                            13-SEP-1996;
01-JUN-1993;
29-MAY-1992;
03-APR-1995;
                                                                                                                                                                                                                                                                                                                                                        GP900; NINC isolate; glycoprotein; antibody; cryptosporidiosis; competitive inhibition; attachment; invasion; ligand binding; s
                                                                                                                                                                                                                                                                                                                                                                                         ORF encoding
                                                                                                                                                                                         06-JUN-2000
                                                                                                                                                                                                                                                                                                                        Cryptosporidium
                                                                                                                                                                                                                                                                                                                                             merozoite; diarrhoea;
                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA61849;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA61849 standard; DNA; 5163
New GP900 protein fragments and fusion proteins of Cryptosporidium
                      WPI; 2000-422065/36
P-PSDB; AAB11727.
                                                      Petersen
                                                                                                                                                                                                              US6071518-A
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                                                                            (REGC ) UNIV
                                                                                                  14-AUG-1996;
                                                                                                                                                                   12-SEP-1997;
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                                                                            CALIFORNIA
                                                                                                            96US-0026062.
93US-0071880.
92US-0891301.
95US-0415751.
                                                                                                                                                                                                                                                                                                                                                                                         portion of Cryptosporidium parvum NINC isolate
                                                                                                  96US-0700651
                                                                                                                                                                  97US-0928361.
                                                                                                                                                                                                                                                                                                                         parvum.
                                                                                                                                                                                                                                 /product= "Cryptosporidium parvum NINC isolate GP900"
/note= "No start or stop codons given in the specification"
                                                                                                                                                                                                                                                                  /partial
                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                         669..7182
                                                                                                                                                                                                                                                                                                                                             protozoacide;
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                                                                                                                                                                                                                                                                                                                                              open reading frame; ORF;
                                                                                                                                                                                                                                                                                                                                               gb
                                                                                                                                                                                                                                                                                                                                                        sporozoite;
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pr parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive pr inhibition of the function of GP900.

XX Claim 16; Column 47-52; 59pp; English.

XX The invention relates to the GP900 glycoprotein of the protozoan CC Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion CC Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion CC cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion CC cryptosporidium parvum, and to a method of cryptosporidiosis treatment CC or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to CC competitively inhibit sporozoite or merozoite attachment or invasion, and CC antibodies also inhibit sporozoite or merozoite attachment or invasion, and CC antibodies also inhibit sporozoite or merozoite attachment or invasion, and CC contents, fragments and antibodies may therefore be used to treat or provent cryptosporidosis. Infection with Cryptosporidium is a common CC cause of diarrhoea in humans and causes life-threatening diarrhoea in CC contentinated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the CC detection of the parasite in the environment. The present sequence.

CC protein of the NINC isolate of Cryptosporidium parvum.
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Sequence 5163 BP; 1873 A; 1138 C; 875 G; 1277 T; 0 other;

QУ В B Ş В 9 DЪ QУ Вb δÃ B οy Db QΥ Matches 234; Query Match Local Similarity 1100 1040 445 CAACAA 450 385 980 265 CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCCTGGCAA 324 85 CTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCC 25 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAAACCCATAT 84 CEACAACAACATTTCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC CCATTCCCCCAACAACCAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAA 264 CAACAA 1105 CAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCC 444 CAACAACAACAACAACTACAACTACCAAGAAACCAACAACTACTACTACTACCA 1039 CTACAACCACAACAACTACAACCACAACAACCACAACCACAACCACAACTACCAAGAAAC Conservative 24.9%; 54.9%; 0; Score 118.8; DB 2 Pred. No. 5.3e-18; Mismatches 192; DB 21; Indels Length 5163; 0; Gaps 859 799 144 919 384 0

ABT04778 ID ABT(

ABT04778 standard; DNA; 5163

ВP

ABT04778;

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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing cryptosporidiosis. This involves obtaining a sample and contacting it with Cryptosporidium G9900, P68 or cryptopain antigen, antibody, DNA or RNA, or its variant, mutant or fragment. The method is also useful for detecting and identifying individual Cryptosporidium isolates based on the genetic characteristics, and for diagnosis of prior or concurrent cryptosporidium infection. The present sequence is a C. parvum coding sequence used in the exemplification of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Detecting Cryptosporidium in biological and environmental samples a diagnosis of cryptosporidiosis involves, contacting the sample with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
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CAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCC
                                                           CAACAACAACAACAACTACAACTACCAAGAAACCAACAACTACTACTACTACCA
                                                                               CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTTCCAGCAACCC
                                                                                                                                      CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCTGGCAA
                                                                                                                                                                                                                 CTACAACCACAACTACAACCACAACAACCACAACCACAACCACAACTACCAAGAAAC
                                                                                                                                                                                                                                        CCATTCCCCCAACAACCACCATCTTCCTTCGGCCCCAACAACAACCATTCCCCTGGCAA
                                                                                                                                                                                                                                                                                             CTACCGCAAAAAACCATTTCCAGTGCAGCAACCATTTCACACACCACCAACAATATTTCCCC
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Pred. No. 5.3e
0; Mismatches
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV20701 standard;
                                                                                                                                   The sequence is that encoding the GP900 antigen which may be used in the production of anti-Cryptosporidium antibodies. These can be used for the prophylaxis, treatment, inhibition or retardation of a Cryptosporidium infection in humans or in animals such as calves They can also be used for the detection and diagnosis of related
                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
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                                                                                                                         They can a infections
                                                                                                                                                                                                Claim 32;
                                                                                                                                                                                                                            Anti-Cryptosporidium antibody - used detection, diagnosis, prophylaxis or
                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                          Gut J,
                                                                                                                                                                                                                                                                                                              (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                  14-AUG-1996;
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                                                                                                      Sequence 5318 BP;
                                                                                                                                                                                                                                                             P-PSDB;
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DB; AAW48299.
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                                                                       Similarity
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                                 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATAT
CTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCCAACAATATTTCCCCC
                      Pages 62-63; 89pp; English
                                                               Conservative
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/product=
524..1270
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                                                                                                       1944 A; 1153 C; 888 G;
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                                                                                   Score 118.8;
                                                                        Pred.
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                                                               Mismatches
                                                                                                                                                                                                                              to develop products for treatment of Cryptosporidium
                                                                5.4e-18;
ches 192;
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                                                                                   DB 19;
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                                                                                                                        13-SEP-1996;
01-JUN-1993;
29-MAY-1992;
03-APR-1995;
14-AUG-1996;
                                                                                                                                                                                                                                                            3'UTR
New GP900 protein fragments and fusion proteins of Cryptosporidium parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive inhibition of the function of GP900 -
                                                                                                    (REGC ) UNIV
                                                                                                                                                                                      12-SEP-1997;
                                                                                                                                                                                                          06-JUN-2000
                                                                                                                                                                                                                              US6071518-A.
                                                                                                                                                                                                                                                                                                                                            Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                 merozoite; diarrhoea;
                                                                                                                                                                                                                                                                                                                                                                       GP900; NINC isolate; glycoprotein; antibody; cryptosporidiosis; competitive inhibition; attachment; invasion; ligand binding; s
                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding
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                                                  2000-422065/36.
DB; AAB11727.
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                                                                                                     CALIFORNIA
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                                                                                                                                  96US-0026062.
93US-0071880.
92US-0891301.
95US-0415751.
                                                                                                                                                                                                                                                                                                                                                                                                      portion of Cryptosporidium parvum NINC isolate GP900
                                                                                                                        96US-0700651
                                                                                                                                                                                     97US-0928361
                                                                                                                                                                                                                                                                                                                                            parvum
                                                                                                                                                                                                                                                            5167..5318
                                                                                                                                                                                                                                                                                                                1669.
                                                                                                                                                                                                                                                                     /product= "Cryptosporidium parvum NINC isolate GP900"
/note= "No start codon given in the specification"
                                                                                                                                                                                                                                                                                          /partial
                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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protozoacide;
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immunocompromised persons. Cryptosporidiosis can be contracted from contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the detection of the parasite in the environment. The present sequence represents genomic DNA encoding a portion of the GP900 protein of the NINC isolate of Cryptosporidium parvum.
                                                                                                                                                                                                                                                                                                 GP900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to competitively inhibit sporozoite or merozoite attachment or invasion, and are also useful for the generation of anti-GP900 antibodies. The antibodies also inhibit sporozoite or merozoite attachment/invasion and additionally inhibit sporozoite or merozoite attachment/invasion and additionally inhibit the binding of GP900 ligands to GP900. GP900 proteins, fragments and antibodies may therefore be used to treat or prevent cryptosporidiosis. Infection with Cryptosporidium is a common cause of diarrhoea in humans and causes life-threatening diarrhoea in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to the GP900 glycoprotein of the protozoan Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit anti-
Sequence 5318 BP; 1939 A; 1158 C; 890 G; 1331 T; 0
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other;

QY Ъ Qy В Qy Ъ QΥ DЬ δ 밁 δÃ Db Qy В Вр Qy Matches Query Match Local 1100 1040 445 CAACAA 450 800 920 860 980 325 265 740 680 234; 25 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATAT Similarity CAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCC CAACAA 1105 CTACCGCAAAAACCATTTCCAGTGCAGCAACCAGTTTCACACACCCCCAACAATATTTCCCC 144 CAACAACAACAACAACAACTACAACTACCAAGAAACCAACAACTACTACTACTACTACCA 1039 CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC CCATTCCCCCAACAACCACAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAA Conservative 24.9%; Score 118.8; D Pred. No. 5.4e-0; Mismatches 0; .4e-1 DB 192; 21; Indels Length 0; Gaps 444 979 324 264 204 799 384 919 84 0,

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ABT04777

standard;

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ВP

27-SEP-2002 ABT04777;

(first entry)

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Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cryptosporidiosis. This involves obtaining a sample and contacting it with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA on RNA, or its variant, mutant or fragment. The method is also useful for detecting and identifying individual Cryptosporidium isolates based on the genetic characteristics, and for diagnosts of prior or concurrent Cryptosporidium infection. The present sequence is a C. parvum coding sequence used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cryptosporidium
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1040
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                                                                                                                         CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC
                                                                                                                                                                     Page 101-103; 157pp; English.
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54.9%;
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Pred. No. 5.4e-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antigen,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibody, DNA or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 5318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                 1039
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SXCCCCCCCX PX PTTTX RX PX PX PX PX X X X X X E

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RESULT 8
AAA61847
ID AAA6
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AC AAA6
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        contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the detection of the parasite in the environment. The present sequence
                                                                                                                                                             are also useful for the generation of anti-GP900 antibodies. The antibodies also inhibit sporozoite or merozoite attachment/invasion additionally inhibit the binding of GP900 ligands to GP900. GP900
                                                                                                                                                                                                           GP900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to competitively inhibit sporozoite or merozoite attachment or invasion, and
                                                                                                                                                                                                                                                                             Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit anti-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                diagnosing or treating Cryptosporidium infections inhibition of the function of \ensuremath{\mathsf{GP900}} -
                                                                                                                                                                                                                                                                                                                                                                                                                New GP900 protein fragments and fusion proteins of Cryptosporidium parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-422065/36.
P-PSDB; AAB11726.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GP900; Iowa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cryptosporidium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAA61847
                                                                                                              prevent cryptosporidiosis. Infection with Cryptosporidium is a common cause of diarrhoea in humans and causes life-threatening diarrhoea in
                                                                                                                                                                                                                                                                                                                                                                 Claim 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (REGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-MAY-1992
03-APR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-SEP-1996;
01-JUN-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               competitive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-OCT-2000
                                                                                                                                                 proteins, fragments and antibodies may therefore be used to treat or
                                                                                                                                                                                                                                                                                                                                 The invention relates to the GP900 glycoprotein of the protozoan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Petersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-SEP-1997;
                                                                                              immunocompromised persons. Cryptosporidiosis can be contracted from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1100 CAACAA 1105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                 Column 37-42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diarrhoea; protozoacide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 isolate; glycoprotein; antibody; cryptosporidiosis; inhibition; attachment; invasion; ligand binding; s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92US-0891301.
95US-0415751.
96US-0700651.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-0026062
93US-0071880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0928361
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               parvum
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "t= "Cryptosporidium parvum Iowa isolate GP900"
"No stop codon given"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             מ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5511
                                                                                                                                                                                                                                                                                                                                                                59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               isolate GP900 ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               open reading
                                                                                                                                                                                                                                                                                                  GP900 fragments, and fusion invention also relates to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               frame;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORF;
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RESULT 9
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Best Local
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                                 Detecting Cryptosporidium in biological and environmental samples and diagnosis of cryptosporidiosis involves, contacting the sample with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or RN.
         Disclosure;
                                                                             WPI; 2002-566447/60
                                                                                                Petersen C,
                                                                                                                    (REGC ) UNIV CALIFORNIA
                                                                                                                                       06-JUN-2000; 2000US-0588995
                                                                                                                                                          14-MAY-2001;
                                                                                                                                                                               13-DEC-2001
                                                                                                                                                                                                   WO200194631-A1
                                                                                                                                                                                                                     Cryptosporidium
                                                                                                                                                                                                                                          gene;
                                                                                                                                                                                                                                               Cryptosporidium detection; GP900; P68; cryptopain; cryptosporidiosis;
                                                                                                                                                                                                                                                                         C
                                                                                                                                                                                                                                                                                            27-SEP-2002
                                                                                                                                                                                                                                                                                                                                    ABT04776 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5511 BP;
                                                                                                                                                                                                                                                                     parvum GP900 gene fragment SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                           1346
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                                                                                                                                                                                                                                                                                                                                                                                  TACCCTGTGCAACCACACACCTCAACACCTCAACCAGTCCCCCAACAA 450
                                                                                                                                                                                                                                                                                                                                                                                                                      CAACTACAACTACCAAGAAACCAACAACTACTACTACTACCACAACAACAACAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                           CCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCAACAATCA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAACAACAACAACTACTACTACAACCACGACAACAACCACGACAACCACAACCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAACCATTTCCAGTGCAGCAACCGTTTCACACACACCCCAACAATATTTCCCCTATCTACCA
      Page 99-101; 157pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                           2001WO-US15624
                                                                                               Barnes
                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of Cryptosporidium parvum.
                                                                                                                                                                                                                     parvum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964 A; 1204 C;
                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23.4%; 54.2%;
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                                                                                                Nelson
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                                                                                                                                                                                                                                                                                                                                    ВP
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Pred. No. 2.7e-16;
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                                                                                                RG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            944 G; 1399 T; 0 other;
                                                                                                Gut
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RESULT 10
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                                                                                                                                             Key
5'UTR
                                                                                                                                                                                                                 GP900; Iowa isolate; glycoprotein; antibody; cryptosporidiosis; competitive inhibition; attachment; invasion; ligand binding; sporozoite; merozoite; diarrhoea; protozoacide; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing cryptosporidiosis. This involves obtaining a sample and contacting it with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or RNA, or its variant, mutant or fragment. The method is also useful for detecting and identifying individual Cryptosporidium isolates based on the genetic characteristics, and for diagnosis of prior or concurrent Cryptosporidium infection. The present sequence is a C. parvum coding sequence used in the exemplification of the invention.
           US6071518-A
                                                        3'UTR
                                                                                                                                                                                         Cryptosporidium
                                                                                                                                                                                                                                                                                Cryptosporidium parvum
                                                                                                                                                                                                                                                                                                               28-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                        AAA61846 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             214 CAACAACCACAACAACCTCTTCCTCGGCCCCAACAACAATTCCCCTGGCAACCACAACAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94 AAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCCTATCTACCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCCAACAATCA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCTGGCAACCACAACAA
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                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                            /*tag= a
1669..7182
                                                                                                                                                                                         parvum
                                                   /*tag= b
/product= "Cryptosporidium parvum Iowa isolate
/product= "Cryptosporidium parvum Iowa isolate
/transl_except= (pos:7021..7023, aa:Asp)
                                                                                                                                                          Location/Qualifiers
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                                                                                                                                               . 1668
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                                                                                                                                                                                                                                                                                Iowa
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                                                                                                                                                                                                                                                                                isolate GP900 DNA
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Pred. No. 2.7e-16;
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Best Local
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01-JUN-1993;
29-MAY-1992;
03-APR-1995;
14-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cause of diarrhoea in humans and causes life-threatening diarrhoea in immunocompromised persons. Cryptosporidiosis can be contracted from contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the detection of the parasite in the environment. The present sequence represents genomic DNA encoding the GP900 protein of the Iowa isolate of Cryptosporidium parvum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                competitively inhibit sporozoite or merozoite attachment or invasion, and are also useful for the generation of anti-GP900 attachment/invasion and antibodies also inhibit sporozoite or merozoite attachment/invasion and additionally inhibit the binding of GP900 ligands to GP900. GP900 proteins, fragments and antibodies may therefore be used to treat or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GP900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to the GP900 glycoprotein of the protozoan Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit anti-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 16; Column 31-38; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New GP900 protein fragments and fusion proteins of Cryptosporidium parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive inhibition of the function of GP900 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Petersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-JUN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prevent cryptosporidiosis. Infection with Cryptosporidium is a common
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)B; AAB11726.
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                                   CCATTTCCCCAGCCCCAAGAACCAATTCCCCAACAACCATTCCCCTGGCAACCACAACAA
                                                                                                                                                                                                                             CAACCACAACCACAACTACCAAGAAACCAACCAACAACAACAACAACAACTACTACTA 283
                                                                                                                                                                                                                                                                                                                                          CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAA 93
                                                                                                                                                                                                                                                                AAACCATTTCCAGTGCAGCCAACCGTTTCACACACCCCCAACAATATTTCCCCCTATCTACCA 153
                                                                                                                                                                                                                                                                                                      CAACAACAACAACTACTACTACAACCACGACAACAACAACCACGACAACCACCACCA
                                                                                                              CAACAACCACAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAACCACCAACAA 273
                                                                                                                                                    CTACTACCACAACAACCACAACCACAACCACCACAACTACCAAGAAACCAACAACAACAA
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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92US-0891301.
95US-0415751.
96US-0700651.
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RESULT 11
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Best Local :
                                                                                                                                                                                                                                                                                      The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing cryptosporidiosis. This involves obtaining a sample and contacting it with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or RNA, or its variant, mutant or fragment. The method is also useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C
                                                                                                                                                                                                                                                detecting and identifying individual Cryptosporidium isolates based on
the genetic characteristics, and for diagnosis of prior or concurrent
Cryptosporidium infection. The present sequence is a C. parvum coding
                                                                                                                                                                                                                                                                                                                                                                                                           Detecting Cryptosporidium in biological and environmental samples and diagnosis of cryptosporidiosis involves, contacting the sample with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or RNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene;
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                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Petersen C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (REGC ) UNIV CALIFORNIA
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                                                                                                                                                                                                           Sequence 7334 BP;
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                                                                                                     CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAA
                                                                                                                                                                                                                                     used in the exemplification of the invention.
                                                  CAACCACAACCACCAACTACCAAGAAACCAACAACAACAACAACAACTACTACTA
                                                                                                                                                                                                                                                                                                                                                                      Page 97-99; 157pp; English
                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       detection; GP900; P68; cryptopain; cryptosporidiosis;
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                                                                                                                                                                                                           2627 A; 1536 C; 1263 G; 1908 T; 0 other;
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RESULT 12
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                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                 Sequence 1107 BP;
                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a glutenin gene, and is isolated the genomic DNA of Triticum durum L. The gene codes for a low-molecular-weight glutenin protein and can be used to produce transgenic durum wheat plants with "better quality characteristic [no details given].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 molecular weight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Durum wheat glutenin gene -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cardelli
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transgenic duru
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                                                                                                                                                                                                                                                             Local Similarity
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                                                                                                                                      GCAACAACAACAACCACCATTATCGCAACAACAACAACCACCATTTTCGCAGCAACAACA 194
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                                                                                                                                                                                    GCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATATCTACCGCA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 13;
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                                                                                                                                                                                                                                                                                                                                 368 A;
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04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
                                                                                                       New spatially-addressable set of single exon nucleic acid puseful for measuring gene expression in sample derived from breast, comprises number of single exon nucleic acid probes
                                                                                                                                                                                                                                                                                                                                                                              disease;
                                                                                                                                                    WPI; 2001-496933/54
                                                                                                                                                                                                                                                                                                                  09-AUG-2001.
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                                                                                                                                                                                                                                                                                             30-JAN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                        Human breast cell single exon nucleic acid probe #8641.
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                                                                                                                                                                                                                                                                                                                                                                                                                               -2002
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2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
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                                                                                                                                                                                                                                                                                                                                                                                     probe;
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                                                                                                                    human
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The invention relates to a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human breast and BT 474 cells. The method involves contacting the probes with a collection of detectably labelled nucleic acids derived from mRNA of human breast, and then measuring the label

4.

SEQ ID NO 8641; 327pp + sequence listing; English.

bound to each probe of the microarray. The probes are useful verifying the expression of regions of genomic DNA predicted encode proteins. They are useful for gene discovery, and for

6 for Q Дδ 20 DЬ Qy Db Q Вþ 9 Вb

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RESULT 14
ABA67865
ID ABA6787
XX ABA6787
AC ABA67
XX O1-FE
XX Humar
XX Humar
XX Humar
XX Homo
XX Homo
XX WO20(
XX WO20(
XX WO26
PN WO20(
XX WO30-Ji
PF 30-Ji
PR 26-M,
PR 30-Ji
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Matches 225
04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                determining predisposition and/or prognosing breast disease. Gene expression analysis is useful for assessing the toxicity of chemical agents on cells. The microarray of this invention presents a far greater diversity of probes for measuring gene expression, with far less bias than expressed sequence tag microarrays. The method is suitable for rapid production of functional information from genomic sequence. The present sequence is a single exon nucleic acid probe of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                          09-AUG-2001.
                                                                                                 WO200157277-A2
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                                                                                                                                                                                                                                                  ABA67865 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                  30-JAN-2001;
                                                                                                                          Homo sapiens
                                                                                                                                                  Human;
                                                                                                                                                                                                                         ABA67865;
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                                                                                                                                                                        foetal liver single exon nucleic acid probe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAA
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                                                                                                                                                                                                                                                                                                                                                              CCATTTCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCCAACAATCA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAACCACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAACCACAACAA 273
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                                                                                                                                                                                                                                                                                                                                                                                                              TACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCAACAAGCT
 ; 2000US-0180312.
; 2000US-0207456.
; 2000US-0608408.
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                                                  2001WO-US00669
                                                                                                                                                                                                 (first entry)
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                                                                                                                                                 liver;
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                                                                                                                                                                                                                                                  DNA;
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); Mismatches
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                                                                                                                                                 single
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RESULT 15 ABA34921 ID ABA34

standard;

DNA;

1635

ВP

XAXEX

23-JAN-2002 ABA34921; ABA34921

(first entry)

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21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a single exon nucleic acid probe for measuring human gene expression in a sample derived from human foetal liver. The single exon nucleic acid probes may be used for predicting, measuring and displaying gene expression in samples derived from human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
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                                                                                                                                                                                                                                                                                                                                                                     Sequence 1635 BP; 538 A; 916 C; 18 G; 163 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                        Note: The sequence data for this patent did not form printed specification, but was obtained in electronic from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                   ietal
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921
                                       861
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                                                                                                                                                                                                                                                                                                                               225;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genome-derived single exon nucleic
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                                                                                                                                                                                                                                                                                                                                        Similarity
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                   TCA 456
                                        CCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCCAACAATCA
                                                                                                                        TACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCAACAAGCT
                                                                                ome-derived single exon nucleic acid probes gene expression in human fetal liver -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hanzel DK,
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2000US-0234687.
2000US-0236359.
2000US-0024263.
                                                                                                                                                                                                                                                                                                                               Conservative
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53.2%;
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                                                                                                                                                                                                                                                                                                                                                   Score 106.2;
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                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful
                                                                                                                                                                                                                                                                                                                                                                                                      format directly
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                                                                                                                                                                                                                                                                                                                               Gaps
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Query Match
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Matches 225
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26-MAY-2000; 2000US-0207456.
30-JUN-2000; 2000US-0608408.
03-AUG-2000; 2000US-0632366.
21-SEP-2000; 2000US-0234687.
27-SEP-2000; 2000US-0236359.
04-OCT-2000; 2000GB-0024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to single exon nucleic acid probes for measuring human gene expression in a sample derived from human heart. The present sequence is one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1635 BP; 538 A; 916 C; 18 G; 163 T; 0 other;
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hearts
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; gene expression;
cardiovascular disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; SEQ ID No 13387; 530pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ftp.wipo.int/pub/published_pct_sequences.
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    334
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Search completed: May 25, Job time: 241.66 secs

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US-08-991-300-1
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LENGTH: 5163 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
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NAME: Verny, Hana
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MEDIUM TYPE: Floppy disk
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MOLECULE TYPE:
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REFERENCE/DOCKET NUMBER: 48
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n Avenue, Suite 6
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Pred. No. 2.2e-20;
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LENGTH: 5318
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CURRENT FILING DATE: 1997-08-14
EARLIER APPLICATION NUMBER: 08/415,751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: PETERSEN, CAROLYN
APPLICANT: LEECH, JAMES
APPLICANT: NELSON, RICHARD, C.
APPLICANT: GUT, JIRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EARLIER FILING DATE: 1995-04-03
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.0
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FILE REFERENCE: 480.19-4(HV)
                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Cryptosporidium
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US-08-928-361B-3
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Best Local Similarity 54.9
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TITLE OF INVENTION:
TITLE OF INVENTION:
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REFERENCE/DOCKET NUMBER: 48
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-1677
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 6
FILING DATE: 13-SEP-1996
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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SYSTEM: PC-DOS/MS-DOS
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Pred. No. 2.2e-20;
0; Mismatches 192;
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   Matches
                                Query Match
                    Best Local Similarity
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                                                                                                                                                                             TELEFAX: 650-324-1678
INFORMATION FOR SEQ ID NO:
                                                                                   TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 5511 base pairs
                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/026,062
FILING DATE: 13-SEP-1996
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 650-324-1677
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APPLICATION NUMBER: US
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                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                REGISTRATION NUMBER: 30, REFERENCE/DOCKET NUMBER:
                                                                                                              STRANDEDNESS:
                                                                                                                                 TYPE:
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5. 6071518
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                                                                                                                                 nucleic acid
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12-SEP-1997
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                                                                                                                double
                  23.4%;
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Score 111.4; DB 3; Pred. No. 1.5e-18; 0; Mismatches 191;
Indels
                                  Length 5511;
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Gaps
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34 CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATATCTACCGCAA 93

23.4%; 54.2%;

Score 111.4; DB 3; Pred. No. 1.6e-18;

Length 7334;

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US-08-928-361B-1
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US-08-928-361B-1
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                                                                                      INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
               MOLECULE TYPE:
                                                                                                                                REFERENCE/DOCKET NUMBER: 48
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-1677
                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION: NAME: Verny, Hana
                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: PETERS, VERNY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
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CITY: Palo Alto
STATE: CA
                          STRANDEDNESS:
TOPOLOGY: lin
                                                           TYPE:
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e, Suite 6
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CAACAACAACAACAACTACTACTACAACCACGACAACAACAACAACGACAACCACAACCA 3013
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                                          TACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCAACAA 450
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Sequence 1, Appreciation Sequence 1, Seque GENERAL INFORMATION:
APPLICANT: D'OVID INFORMATION FOR SEQ ID NO: APPLICATION NUMBER: IT MI 96/A 002663 FILING DATE: 19-DEC-1996 ATTORNBY/AGENT INFORMATION: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS: TELEPHONE: 703-413-3000 PRIOR APPLICATION DATA: APPLICATION NUMBER: CURRENT APPLICATION DATA: TITLE OF INVENTION: STREET: 1/35
CTTY: ARLINGTON REGISTRATION NUMBER: CLASSIFICATION: APPLICATION NUMBER: FILING DATE: 16-DE COUNTRY: U: ZIP: 22202 ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, M ADDRESSEE: P.C. STREET: 1755 S. JEFFERSON DAVIS HIGHWAY REFERENCE/DOCKET NUMBER: SOFTWARE: PatentIn COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS Application US/08991300 USA PORCEDDU, ENRICO
MERCHITELLI, CINZIA 703-413-2220 CARDELLI, LUISA ERCOLI D'OVIDIO, Floppy disk 16-DEC-1997 800 SPIVAK, MCCLELLAND, MAIER & NEUSTADT ENCODING A LOW MOLECULAR WEIGHT GLUTENIN ISOLATION AND CHARACTERIZATION OF A GENE Release #1.0, Version σ RENATO US/08/991,300 24,618 2264-0201-0X #1.30

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Tocal Similarity
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                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Granados, Robert R
APPLICANT: Wang, Ping
TITLE OF INVENTION: A No. 6187558el Invertebrate Intestinal Mucin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 1107 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
 FILING DATE: 24-JUN-1998
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Michaels, Christopl
                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: A NO. 618
TITLE OF INVENTION: cDNA and
NUMBER OF SEQUENCES: 4
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                                                                                                                                                                                                                                  STREET: 118 N
CITY: Ithaca
STATE: NY
                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                   APPLICATION NUMBER: US/09/103,429A FILING DATE: 24-JUN-1998
                                                                                                                                                                                                               COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33 GCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCA
                                                                                                                                                                                                 14850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAACCATTTCCAGTG----CAGCAACCGTTTCACACCCCCAACAATATTTCCCCCTATCT 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAACAA 561
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Michaels, Christopher A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: Brown, Pinnisi & Michaels, P.C.
118 No. 6187558th Tioga
                                                                                                                                                                                                                 USA
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                                                                                                                                                                                                                                                                                                                                        Related Products and Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1107;
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                                                                                                                      Sequence 2, Application US/09103429A Patent No. 6187558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (607) 256-36:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: C
HYPOTHETICAL: NC
            APPLICANT: Granados, Robert R
APPLICANT: Wang, Ping
TITLE OF INVENTION: A No. 6187558el Invertebrate Intestinal Mucin
TITLE OF INVENTION: cDNA and Related Products and Methods
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 2455 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: (607) 256-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 195; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Trichoplusia ni
TISSUE TYPE: Peritrophic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2455 base pairs
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49.0%;
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Pred. No. 2.7e-09;
0; Mismatches 203;
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COMPUTER READABLE FORM:

14850

COUNTRY: CITY: Ithaca STATE: NY

USA

CITY: STREET: ADDRESSEE:

E: Brown, Pinnisi & Michaels, P.C 118 No. 6187558th Tioga

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                                                                         GENERAL INFORMATION:
                                                                                           Sequence 6, Application US/09272032A Patent No. 6296852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                 APPLICANT: Johnson, Michael A. APPLICANT: Prideaux, Christopher T. APPLICANT: McCoy, Richard J.
TITLE OF INVENTION: Recombinant Avian Adenovirus Vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (607) 256-3628 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTI-SENSE: NO
FRAGMENT TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (607) 256-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Michaels, Christopher A
REGISTRATION NUMBER: 34,390
REFERENCE/DOCKET NUMBER: BTI-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 2: CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEVELOPMENTAL STAGE: Larva
TISSUE TYPE: peritrophic membrane
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DEVELOPMENTAL STAGE: larv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: not relevant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
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                                                                                                                                                                                                            639 CAACTACCCGGCCGCAACTACCCCGGCCGCAACTACC 676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     399
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55 CTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAA 114
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Similarity 49.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid
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                                                                                                                                                                                                                                                                                                                           CCAATTCAACAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAACAG 414
                                                                                                                                                                                                                                                                                                                                                                CTCAGGCCCCTACCACACCACCCAGGCCCCAACCACCCAGGCCCCAACTACCACCC 578
                                                                                                                                                                                                                                                                                                                                                                                                  CCAATTCCCCAACAACCATTCCCCTGGCAACCACCAACAACCATTTCCCCCAGCCCCAAGAA 354
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 203;
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RESULT 11
US-08-998-416-915
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 122;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: 48-95a
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                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Wendland, Jurgen
APPLICANT: Knechtle, Philipp
APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 1152
                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                         CLASSIFICATION:
                                                                                          FILING DATE:
                                                                                                             APPLICATION NUMBER:
                                                                                                                                                SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                      MEDIUM TYPE:
                                                                                                                                                                                                                                             COUNTRY: U
ZIP: 27709
                                                                                                                                                                                                                                                                                 STATE:
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                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
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T: 3054 Corrwallis Road
Research Triangle Park
: No. 6239264th Carolina
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Steiner, Sabine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Philippsen, Peter
                                                                                                                                                                                                  Floppy disk
                     31-DEC-1996
                                                                                          24-DEC-1997
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58.9%;
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Pred. No. 1.
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RESULT 12
US-08-147-777-1/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38.241
REFERENCE/DOCKET NUMBER: PF/5
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
TELEFAX: 919-541-8689
                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                      APPLICANT: Rothnagel, Joseph A.
APPLICANT: Greenhalgh, David A.
APPLICANT: Yuspa, Stuart H.
TITLE OF INVENTION: KERATIN K1 EXPRESSION VECTORS
TITLE OF INVENTION: AND METHODS OF USE
NUMBER OF SEQUENCES: 5
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                                                                                        CORRESPONDENCE ADDRESS
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                                              STREET:
                                CITY: Los Angeles
STATE: California
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Local Similarity 49.9%;
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                  COUNTRY:
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611 West Sixth Street
                  U.S.A.
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; MOLECULE TYPE:
US-08-147-777-1
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                                                                                                                                                              Sequence 1, Application US/08452872 Patent No. 6057298
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Best Local Similarity 53.9
Matches 145; Conservative
                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (213) 955-0440
TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
            NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: LYON & LYON
                                                      APPLICANT: Yuspa, Stuart H.
TITLE OF INVENTION: KERATIN
TITLE OF INVENTION: AND MET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 10747 base pai
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                                                                                                    APPLICANT:
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                                                                                                                                  APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Warburg, Richard J. REGISTRATION NUMBER: 32,3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
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611 West Sixth Street
                                                                                                   Roop, Dennis R.
Rothnagel, Joseph A.
Greenhalgh, David A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
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                                                    AND METHODS OF USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14.8%;
                                                                          KERATIN K1 EXPRESSION VECTORS
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COMPUTER READABLE FORM: MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
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APPLICATION NUMBER: 07/876,289
FILING DATE: April 30, 1992
APPLICATION NUMBER: Unassigned (204/144)
FILING DATE: October 29, 1993
FILING DATE: October 29, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TIPE. ....
COMPUTER: IBM PC compatible
OPERATING SYSTEM: IBM MS-DOS (Version 5.0)
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GCACCAAAGCTACCACCACCACCACCACA 1450
                                                                                                          ATGGAGATGCTTTTACTGCCACCAAGGTTAACAAGACTCCGACTTCCAAATCCACCACCA 1479
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Pred. No. 1.8e-08;
0; Mismatches 124;
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                                                                                                                                                          PCT-US93-03985-1/c
                                                                                                                                                                           RESULT 14
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                                                                                                                      Sequence 1, Application PC/TUS9303985 GENERAL INFORMATION:
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Best Local Similarity
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APPLICANT: Rothmagel, Joseph A.
APPLICANT: Greenhalgh, David A.
APPLICANT: Yuspa, Stuart H.
TITLE OF INVENTION: DEVELOPMENT OF A VECTOR TO TARGET GENE
TITLE OF INVENTION: EXPRESSION TO THE EPIDERMIS OF TRANSGENIC ANIMALS
NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: IBM MS-DOS (Version 5.0) SOFTWARE: WordPerfect (Version 5.1) CURRENT APPLICATION DATA:
                                                                                                        APPLICANT:
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
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TOPOLOGY: li
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APPLICATION NUMBER: Unassigne
FILING DATE: October 29, 1993
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California
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                                                                                                    Roop, Dennis R.
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Pred. No. 1.8e
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RESULT 15
US-08-147-777-3/c
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Best Local
                                                                                                                                  GENERAL INFORMATION:
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                                                                                               APPLICANT:
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             APPLICANT: Greenhalgh, David A.
APPLICANT: Yuspa, Stuart H.
TITLE OF INVENTION: KERATIN K1 EXPRESS
TITLE OF INVENTION: AND METHODS OF USE
NUMBER OF SEQUENCES: 5
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ADDRESSEE: Fulbright & Jaworski
CORRESPONDENCE ADDRESS:
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REGISTRATION NUMBER:
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Rothnagel, Joseph
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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53.9%;
                                                  KERATIN K1 EXPRESSION VECTORS
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Pred. No. 1.8e-08;
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PRIOR APPLICATION DATA: including application
PRIOR APPLICATION DATA: described below:
APPLICATION NUMBER: 07/876, 289
FILING DATE: April 30, 1992
APPLICATION NUMBER: Unassigned (204/144)
FILING DATE: October 29, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 204/153
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
TELEEX: 67-3510
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LEVENTH: 2670 below:
Search completed: May 25, Job time: 52,7974 secs
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PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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TYPE: nucleic acid
STRANDEDNESS: single
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STREET: 611 West Sixth Street
CITY: Los Angeles
STATE: California
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